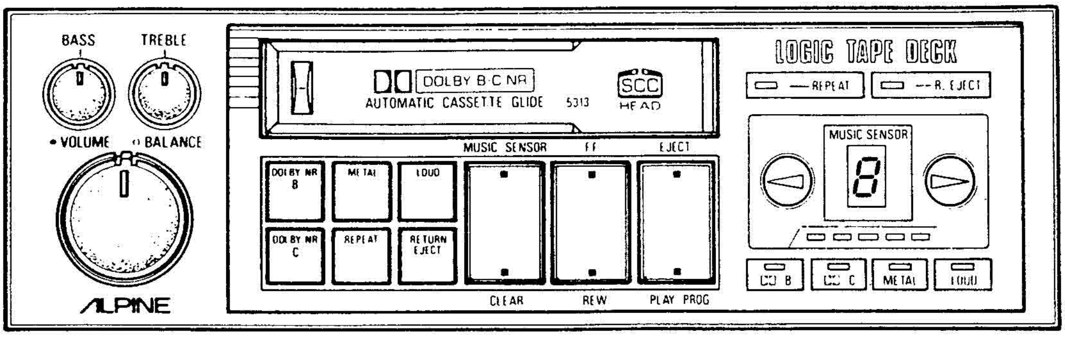
SERVICE MANUAL

Logic Tape Deck


BASS
TREBLE
• VOLUME
○ BALANCE
ALPINE
DOLBY B·C NR
AUTOMATIC CASSETTE GLIDE
5313
SCC HEAD
MUSIC SENSOR
FF
EJECT
DOLBY NR B
METAL
LOUD
DOLBY NR C
REPEAT
RETURN EJECT
CLEAR
REW
PLAY PROG
LOGIC TAPE DECK
REPEAT
R. EJECT
MUSIC SENSOR
8
B
C
METAL
LOUD

5313

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Specifications

Power Requirement	DC 14.0V (11 to 16V Allowable)
Pre-Output Voltage/Impedance (MTT-212)	1.0V/10K ohm
Wow & Flutter (MTT-111, JIS WRMS)	0.2%
Tape Speed (MTT-111)	4.75 cm/sec., –1.0% ~ +3%
Signal to Noise Ratio (MTT-212)	62 dB with Dolby NR C ON 54 dB with Dolby NR B ON 46 dB with Dolby NR OFF
Distortion (MTT-118)	Less than 3.0%
Frequency Response (MTT-216)	80 to 8,000 Hz (–3 dB)
Stereo Separation (MTT-141)	More than 30 dB
Crosstalk (MTT-121)	More than 40 dB
Fast Forward/Rewind Time	100 sec. (C-60)
Semiconductors	16 IC's, 58 Transistors, 31 Diodes, 6 Zener Diodes
Dimensions	160(W) x 50(H) x 25(D) mm
Weight	1.6 kg

- * Specifications and characteristics are subject to change without prior notice.
- * Noise reduction system manufactured under licence from Dolby Laboratories Licensing Corporation. "Dolby" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

Parts Locations and Disassembly Instructions

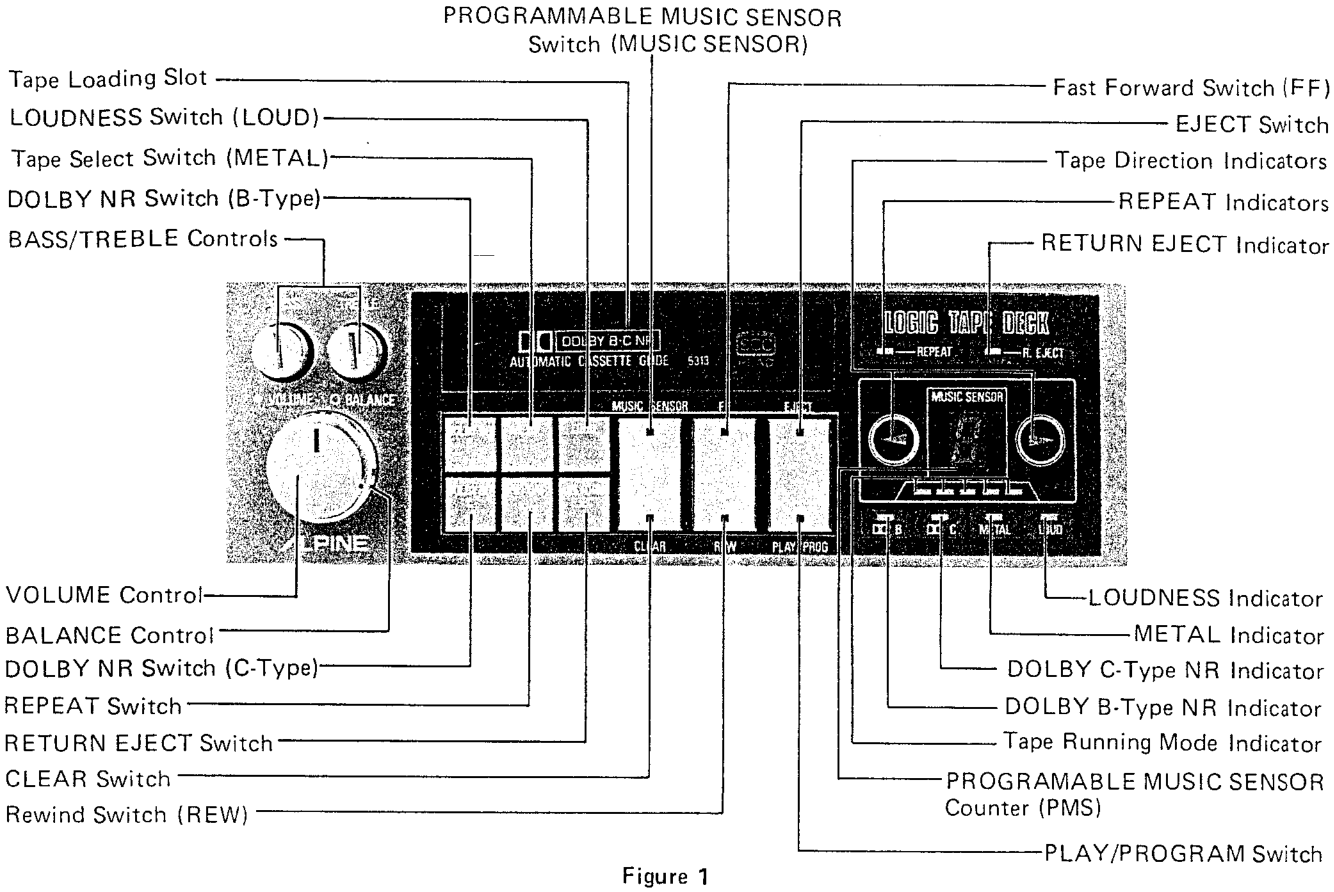

PROGRAMMABLE MUSIC SENSOR Switch (MUSIC SENSOR)
Tape Loading Slot
LOUDNESS Switch (LOUD)
Tape Select Switch (METAL)
DOLBY NR Switch (B-Type)
BASS/TREBLE Controls
Fast Forward Switch (FF)
EJECT Switch
Tape Direction Indicators
REPEAT Indicators
RETURN EJECT Indicator
VOLUME Control
BALANCE Control
DOLBY NR Switch (C-Type)
REPEAT Switch
RETURN EJECT Switch
CLEAR Switch
Rewind Switch (REW)
LOUDNESS Indicator
METAL Indicator
DOLBY C-Type NR Indicator
DOLBY B-Type NR Indicator
Tape Running Mode Indicator
PROGRAMABLE MUSIC SENSOR Counter (PMS)
PLAY/PROGRAM Switch
LOGIC TAPE DECK
REPEAT
R. EJECT
MUSIC SENSOR
DOLBY B-C NR
AUTOMATIC CASSETTE GUIDE 5313
VOLUME
BALANCE
ALPINE
CLEAR
REW
PLAY PROG
B
C
METAL
LOUD

Figure 1

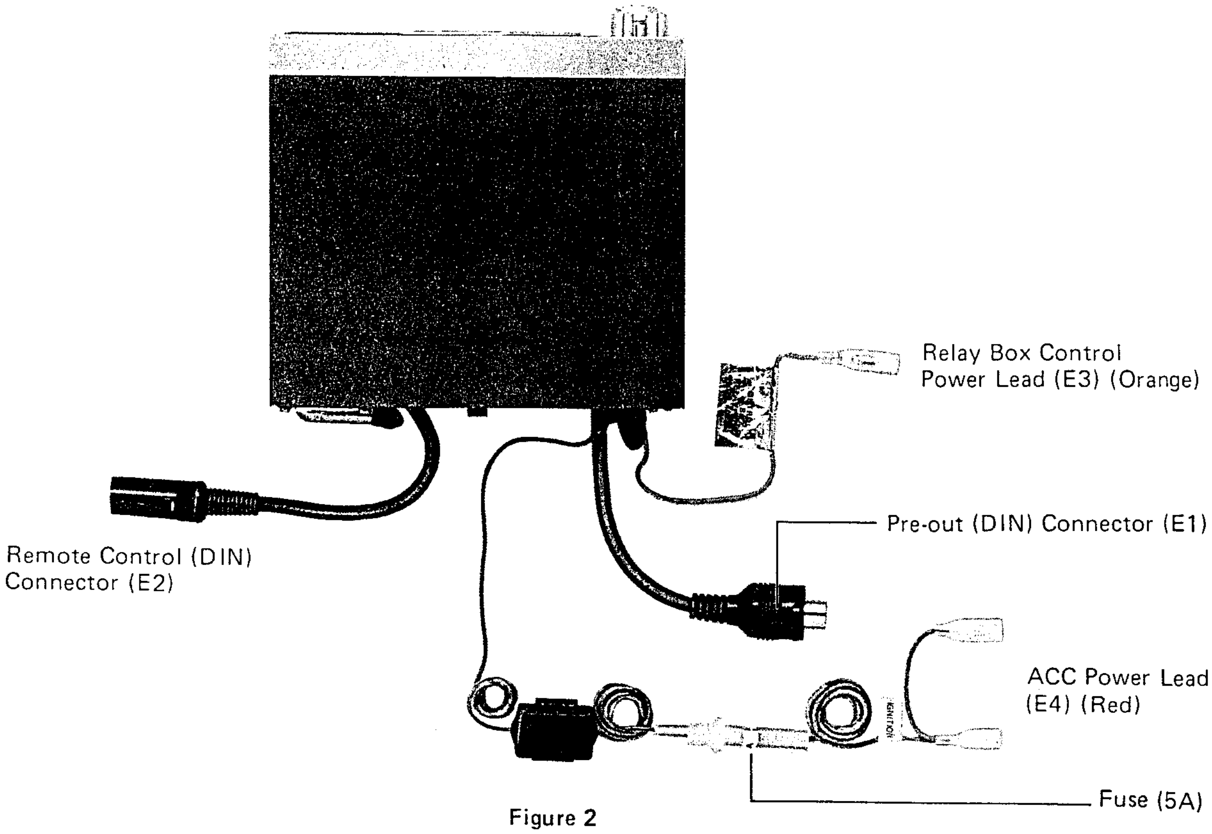

Relay Box Control Power Lead (E3) (Orange)
Pre-out (DIN) Connector (E1)
Remote Control (DIN) Connector (E2)
ACC Power Lead (E4) (Red)
Fuse (5A)

Figure 2

1. Removal of Top Cover

(1) Remove four screws (A) shown in Figures 3 and 4.

(2) Remove the top cover backward.

2. Removal of Nosepiece

(1) Pull out the BALANCE and the VOLUME control knobs shown in Figure 3.

(2) Remove two screws (B) shown in Figures 3 and 4.

(3) Remove the nosepiece frontward.

3. Removal of Switch/LED P.C. Board

(1) Remove two screws (C) shown in Figure 5.

(2) Carefully disconnect all leads and connectors from the P.C. Board not to damage the flexible P.C. Board.

(3) Remove the switch/LED P.C. Board.

(4) Removal of Switch Support

1) Remove four hooks (D) shown in Figure 5 and then remove the switch support from the bottom side.

(5) Removal of LED Support

1) Unsolder LD923 shown in Figure 5 from the pattern side.

2) Remove two hooks (E) shown in Figure 5 and then remove the LED support with LD923.

4. Removal of Rear Chassis

(1) Remove the bottom cover shown in Figure 6.

(2) Remove nine screws (F) shown in Figure 6.

(3) Remove two screws (G) shown in Figure 7.

(4) Remove the rear chassis.

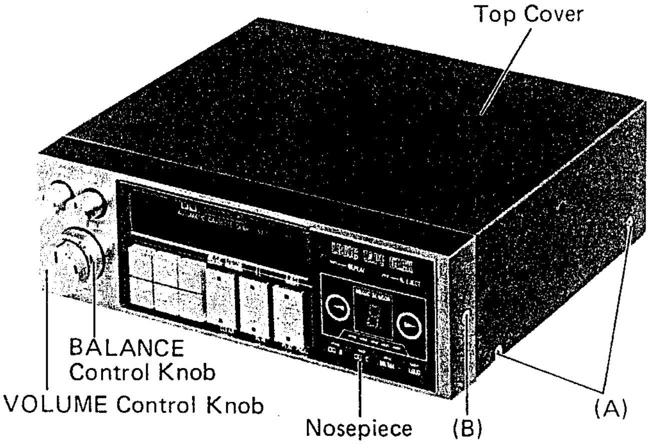

Top Cover
BALANCE Control Knob
VOLUME Control Knob
Nosepiece
(B)
(A)

Figure 3

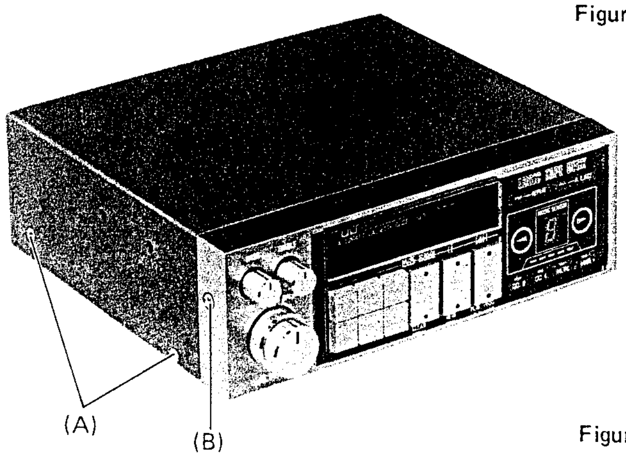


Figure 4

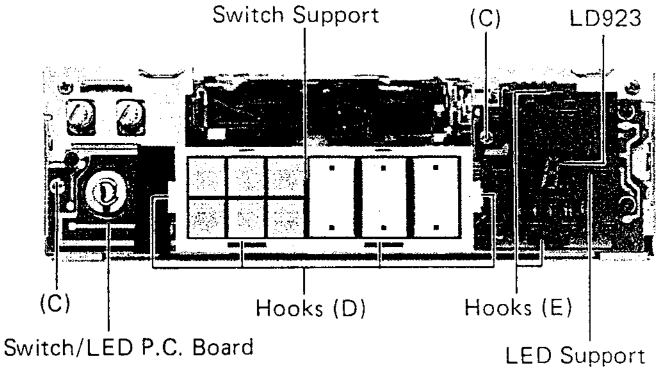

Switch Support
(C)
LD923
(C)
Hooks (D)
Hooks (E)
Switch/LED P.C. Board
LED Support

Figure 5

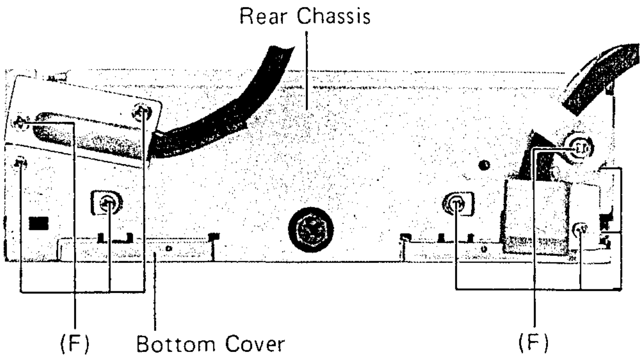

Rear Chassis
(F)
Bottom Cover
(F)

Figure 6

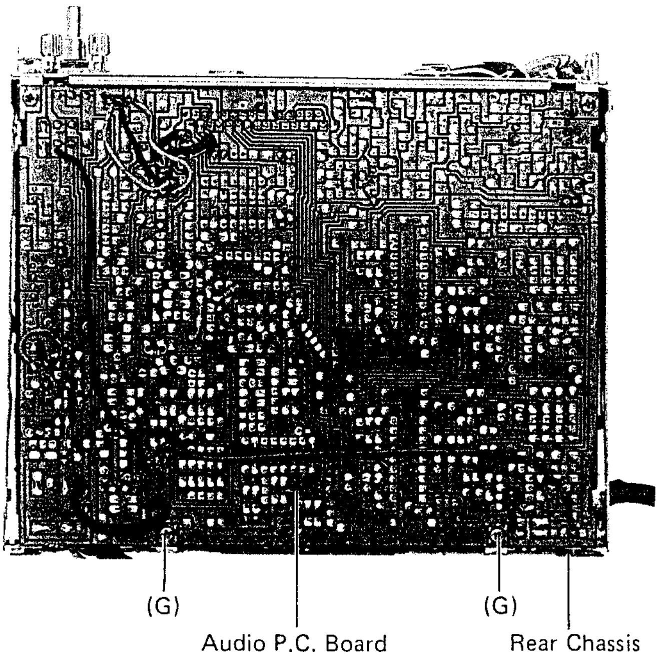

(G)
Audio P.C. Board
(G)
Rear Chassis

Figure 7

5. **Removal of Control P.C. Board**
   (1) Remove two screws (H) shown in Figure 8.
   (2) Remove two screws (I) and the right side chassis shown in Figure 9.
   (3) Disconnect all lead wires from the P.C. Board.
   (4) Remove the control P.C. Board.

6. **Removal of Left Side Chassis**
   (1) Remove two screws (J) shown in Figure 8.
   (2) Remove the left side chassis.

7. **Removal of Cassette Deck Assembly**
   (1) Remove two screws (K) shown in Figure 10.
   (2) Disconnect all lead wires from the P.C. Board.
   (3) Remove the cassette deck assembly.

8. **Removal of Deck Control P.C. Board**
   (1) Unsolder the part marked (L) shown in Figure 11.
   (2) Unsolder the screw (M) shown in Figure 11 and then remove it.
   (3) Disconnect all lead wires from the P.C. Board and remove the control P.C. Board.

9. **Removal of Treble/Bass P.C. Board**
   (1) Pull out two bass and treble control knobs shown in Figure 8.
   (2) Flatten the claws of the volume mounting bracket with a plier as to pass through the grooves on the front chassis shown in Figure 8 and then remove the treble/bass P.C. Board.
   (3) Disconnect all lead wires.

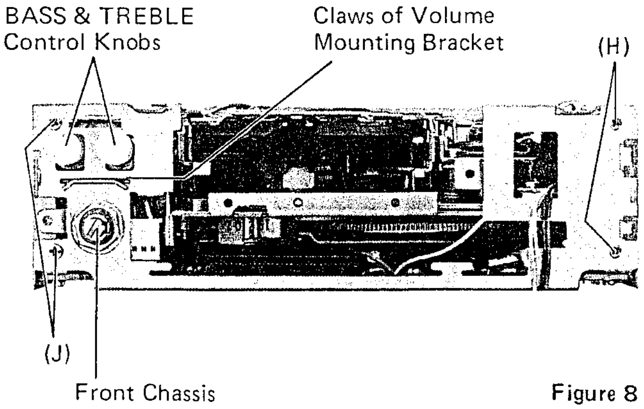

BASS & TREBLE
Control Knobs
Claws of Volume
Mounting Bracket
(H)
(J)
Front Chassis

Figure 8

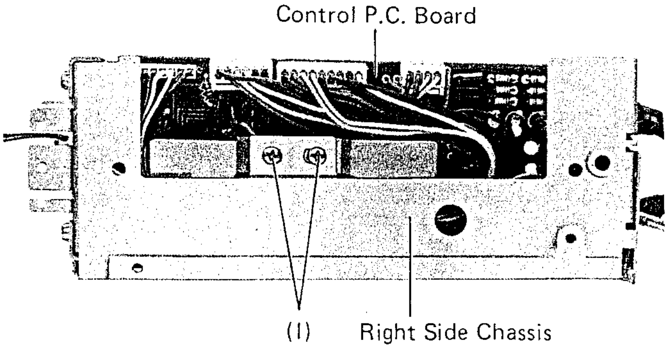

Control P.C. Board
(I)
Right Side Chassis

Figure 9

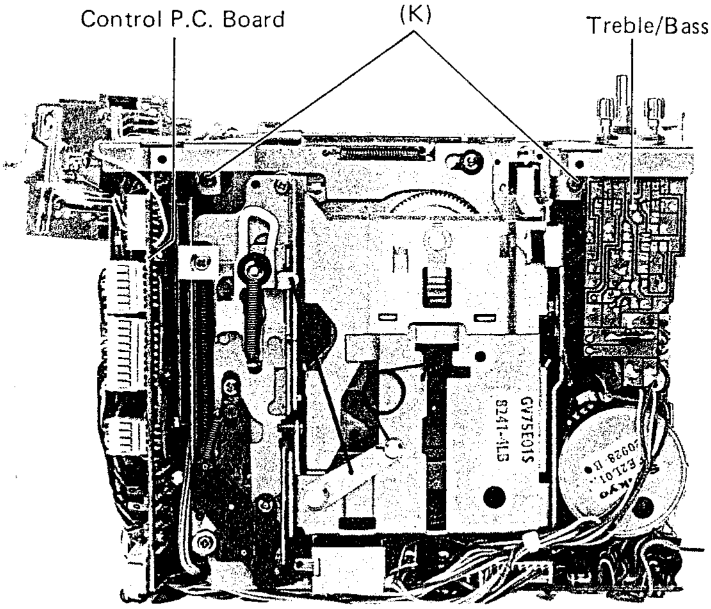

Control P.C. Board
(K)
Treble/Bass P.C. Board
GW75E01S
8241-1LB

Figure 10

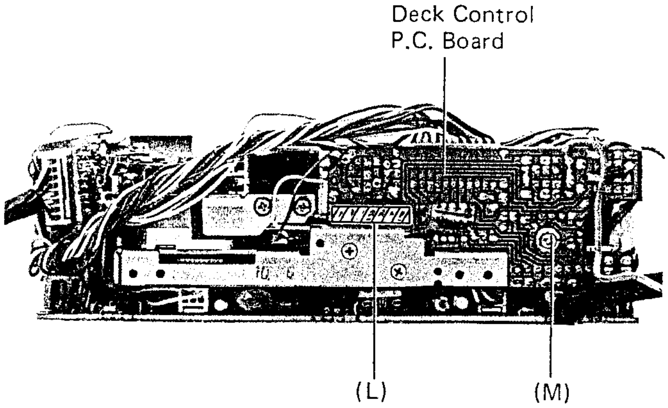

Deck Control
P.C. Board
(L)
(M)

Figure 11

Adjustment Procedures

1. Connections

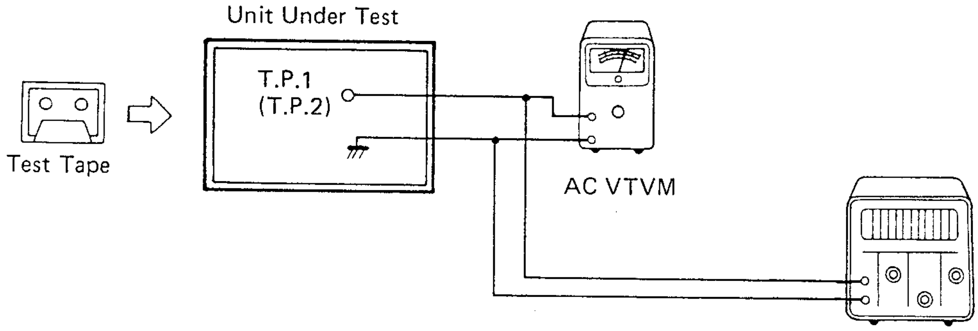

Unit Under Test
T.P.1
(T.P.2)
Test Tape
AC VTVM
Frequency Counter

Figure 12

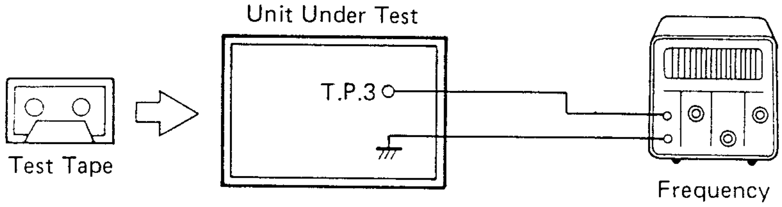

Unit Under Test
T.P.3
Test Tape
Frequency Counter

Figure 13

2. Procedures

Step	Adjustment Item	Test Tape	Connection	Test Point	Adjustment Parts	Remarks
1	Head Azimuth	MTT-114 (10 kHz)	Figure 12	T.P.1 (L) T.P.2 (R)	Head Azimuth Adjustment Screw (Figure 14)	To obtain maximum output and no output differences on AC VTVM at L/Rch and Normal/Reverse side.
2	Tape Speed	MTT-111 (3 kHz)	Figure 12	T.P.1 or T.P.2	Variable Resistor (Figure 15)	To obtain 3000 Hz on Frequency Counter.
3	Dolby Level	MTT-150	Figure 12	T.P.1 (L) T.P.2 (R)	VR201 (L) VR202 (R)	To obtain 387.5mV on AC VTVM at T.P.1 and T.P.2.
4	Music Sensor Detecting Time	Ordinary Music Tape	Figure 13	T.P.3	VR901	To obtain 330 ± 5 Hz on Frequency Counter.

Adjustment Locations

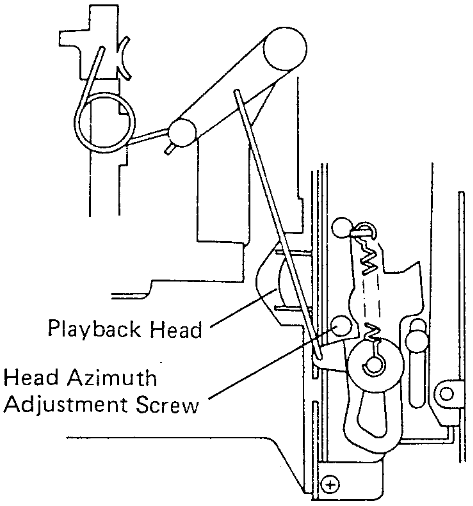

Playback Head
Head Azimuth Adjustment Screw

Figure 14

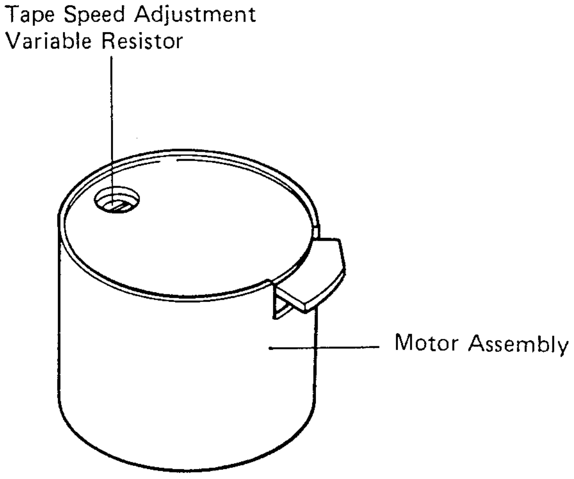
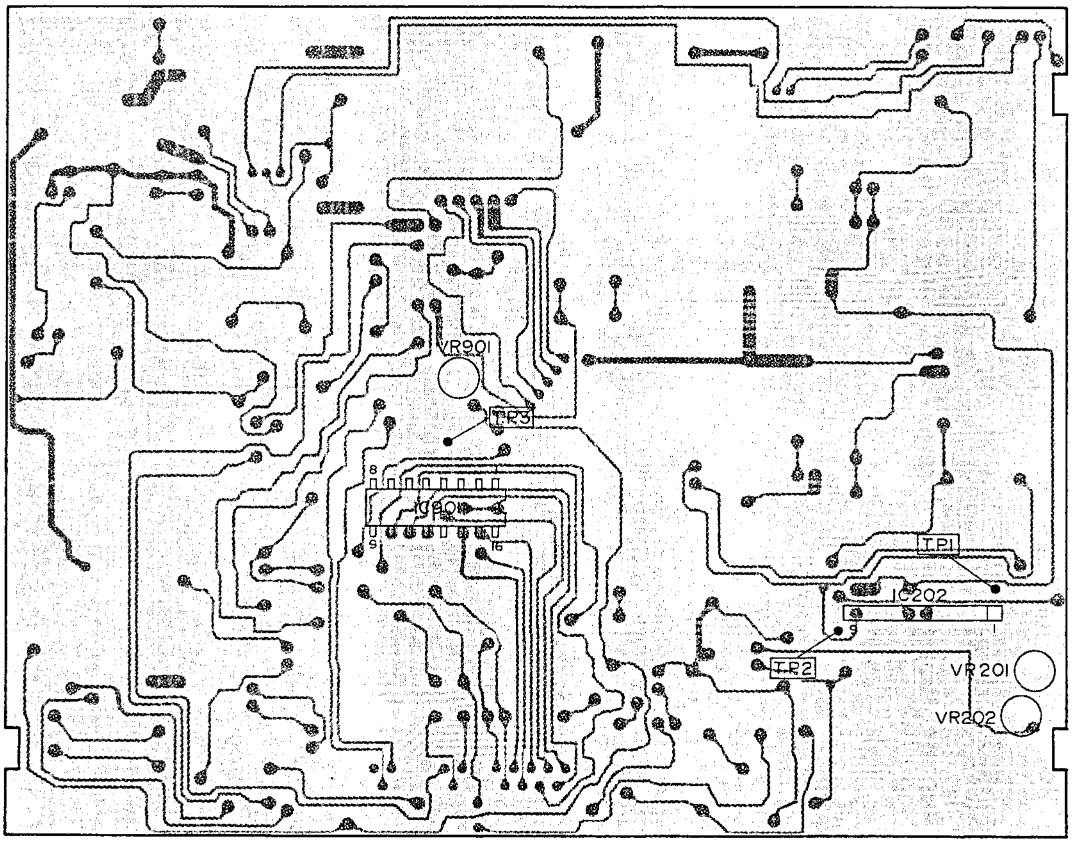

Tape Speed Adjustment Variable Resistor
Motor Assembly

Figure 15


VR901
TR3
8
IC901
9
16
TP1
IC202
9
1
TP2
VR201
VR202

Audio P.C. Board

Replacement of Mechanical Parts

1. **Removal of Cassette Deck**
   (1) Remove the cassette deck according to the item 7 on "Parts Locations and Disassembly Instructions".

2. **Removal of Eject Lever Assembly**
   (1) Remove two screws marked " ○ " shown in Figure 16.
   (2) The eject lever assembly can be removed.

3. **Replacement of Keep Solenoid Assembly**
   (1) Remove two screws marked " X " to take off the keep solenoid assembly shown in Figure 16.
   (But the plunger can not be removed.)
   (2) After replacing the keep solenoid with a new one, install it in the reverse way to disassembly and adjust the mounting position of the eject lock lever as shown in Figure 17.

4. **Replacement of Playback Head**
   (1) Remove the eject lever assembly.
   (2) Unsolder the screw marked " △ " and then remove it and two screws marked " ⊏ " shown in Figure 19.
   (3) Remove the playback head from the P.C. Board.
   (4) After replacing the head with a new one, install the head and switch P.C. Board with three screws temporarily and assemble them in the reverse way to disassembly.
   (5) After assembly, adjust the position of the head and switch P.C. Board so that the clearances on both ends of the slide switch become equal on the normal and reverse sides as shown in Figure 20.
   (6) After adjustment, solder the screw marked "△" shown in Figure 19.

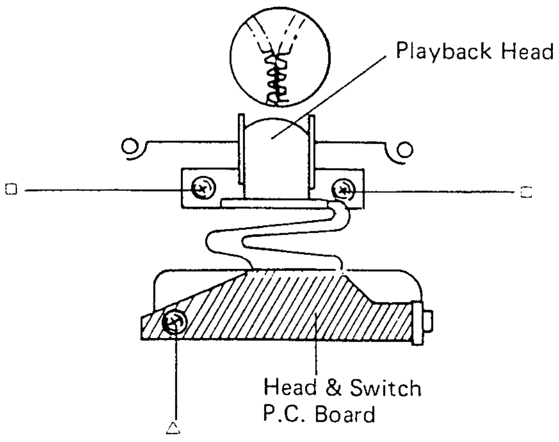


Figure 19

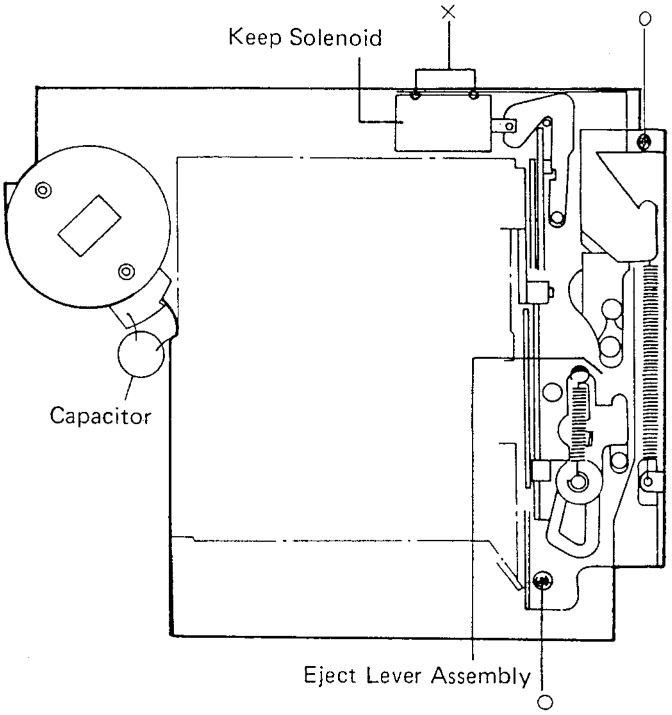


Figure 16

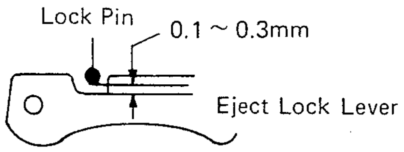


Figure 17

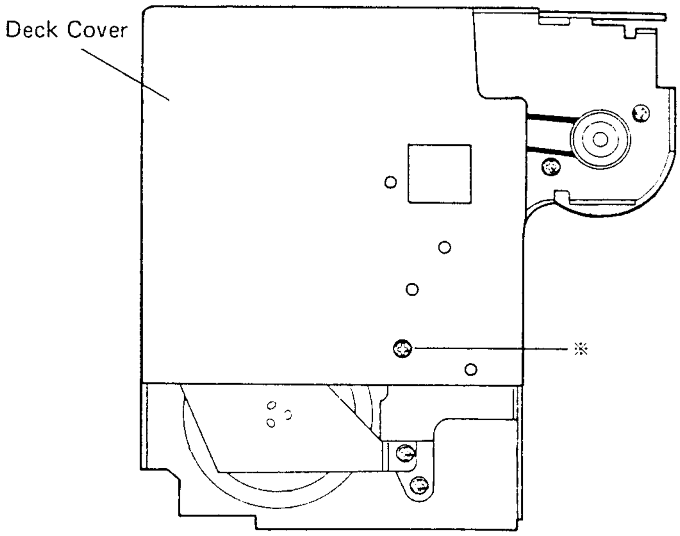


Figure 18

(7) Finally, adjust the head azimuth according to "Head Azimuth Adjustment" and apply a screw-lock point on the adjustment screw to fix it.

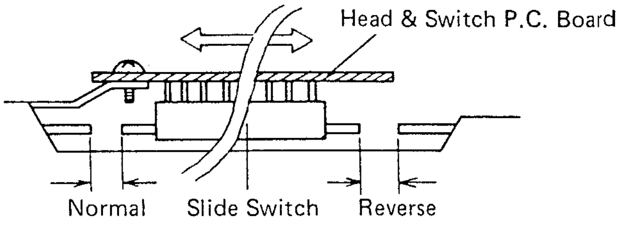

Head & Switch P.C. Board
Normal
Slide Switch
Reverse

Figure 20

5. Replacement of Pinch Roller Assembly (L)

(1) Remove the eject lever assembly.

(2) Remove two "E" rings and the pinch roller spring to take off the pinch roller assembly shown in Figure 21.

(3) After replacing the pinch roller assembly with a new one, clean the pinch roller with absolute alcohol and then assemble it in the reverse way to disassembly.

(4) After assembly, confirm the tape speed and the wow/flutter with the test tape (MTT-111).

(5) The pinch roller (R) can be also replaced in the same way.

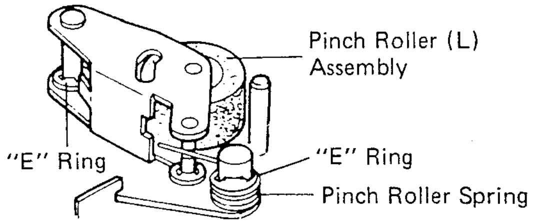

Pinch Roller (L) Assembly
"E" Ring
"E" Ring
Pinch Roller Spring

Figure 21

6. Removal of Deck Cover

(1) Remove the screw marked "※" to take the deck cover off shown in Figure 18.

7. Replacement of Motor

(1) Remove two screws marked " ● " shown in Figure 22.

(2) Remove the capacitor shown in Figure 16.

(3) Remove a lead wire from the motor side to take the motor off.

(4) After replacing the motor with a new one, install it in the reverse way to disassembly.

(5) After installing, adjust the tape speed with the test tape (MTT-111). (Refer to "Tape Speed Adjustment".)

8. Replacement of Program Solenoid

(1) Remove two screws marked " ○ " to take off the program solenoid shown in Figure 22.

(2) After replacing the program solenoid with a new one, install it in the reverse way to disassembly.

9. Replacement of R/F Solenoid

(1) Remove the screw marked " ◇ " to take off the R/F solenoid shown in Figure 22.

(2) After replacing the R/F solenoid with a new one, install it in the reverse way to disassembly.

10. Replacement of REW Solenoid

(1) Remove the screw marked " ◆ " to take off the REW solenoid shown in Figure 22.

(2) After replacing the REW solenoid with a new one, install it in the reverse way to disassembly.

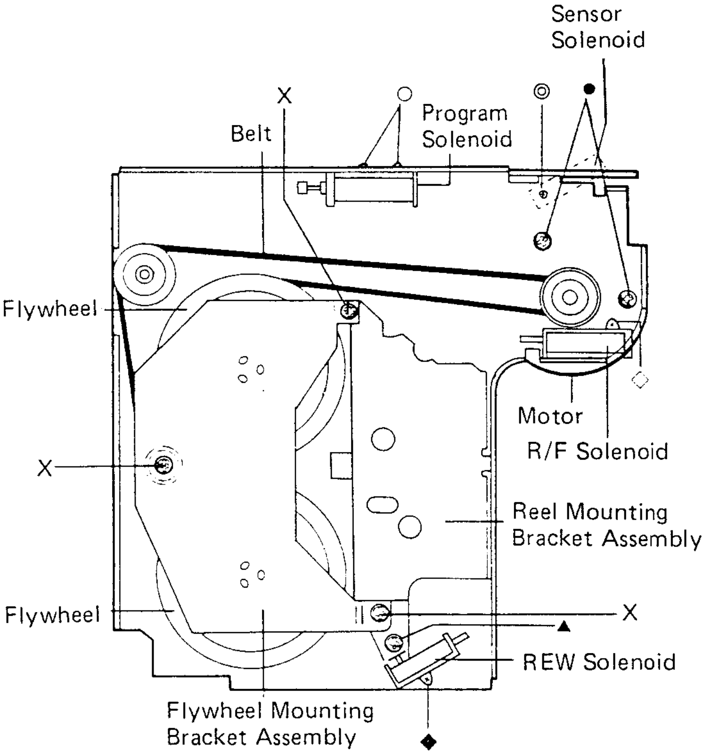

Sensor Solenoid
X
○
◎
●
Program Solenoid
Belt
Flywheel
◇
Motor
R/F Solenoid
X
Reel Mounting Bracket Assembly
Flywheel
X
▲
REW Solenoid
Flywheel Mounting Bracket Assembly
◆

Figure 22

11. Replacement of Sensor Solenoid

(1) Remove the screw marked " ◎ " to take off the sensor solenoid shown in Figure 22.

(2) After replacing the sensor solenoid with a new one, install it in the reverse way to disassembly.

12. Replacement of Belt and Flywheel

(1) Remove three screws marked " X " and the flywheel mounting bracket shown in Figure 22 to take off the belt and the flywheel.

NOTE: The washers shown in Figure 23 are taken off together with the flywheel, be sure not to lose them.

(2) After replacing the belt and the flywheel with new ones, clean them with absolute alcohol and assemble them in the reverse way to disassembly.

(3) After assembling, confirm the tape speed and the wow/flutter with the test tape (MTT-111).

13. Replacement of Reed Switch and Reels

(1) Remove two flywheels.

(2) Remove the screw marked " ▲ " shown in Figure 22.

(3) Remove two screws marked " ■ " to take off the guide bracket rivet assembly shown in Figure 23.

(4) Remove a B.T. spring from the reels to take off the reel mounting bracket assembly shown in Figure 23.

(5) Remove two lock washers to take off two reels shown in Figure 24.

(6) After removal of the reels, remove two screws marked " ※ " and the lead wires to take off the reed switch P.C. Board shown in Figure 24.

(7) After replacing the reel or the reed switch P.C. Board with a new one, assemble it in the reverse way to disassembly. (Take care of the B.T. spring mounting position.)

(8) After assembling, confirm the tape speed and wow/flutter with the test tape (MTT-111).

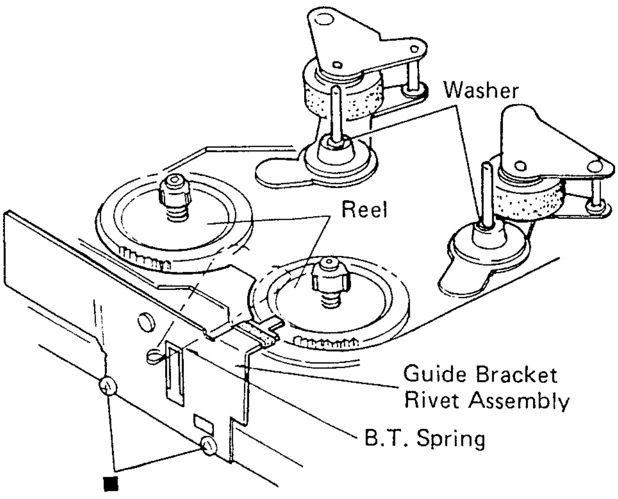


Figure 23

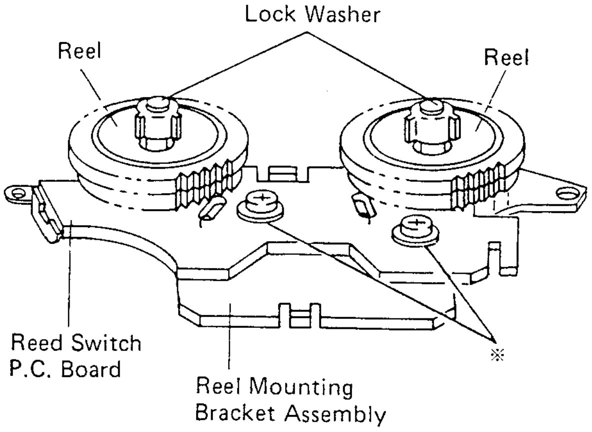


Figure 24

Description of Cassette Deck Function

1. AUTO LOADING OPERATION

(1) The autoloading mechanism utilizes rotation of the motor, and a planet gear mechanism is employed in the automatic speed transform mechanism to make the loading mechanism more compact as well as to change a fast but small motor torque to a slow but high power.

(2) When a cassette tape is loaded and the power is turned on, the motor starts to rotate and the interim pulley (B) rotates. Then, the eject idler gear (C) rotates and this makes the gear (A) of the planet gear section rotate. The planet gear mechanism rotates and this makes the pinion gear (D) rotate, which in turn makes the eject lever assembly (E) move backward and puts the lock pin (F) in the slot of the eject lock lever (G) and keeps it with the solenoid, thus maintaining the playback condition.

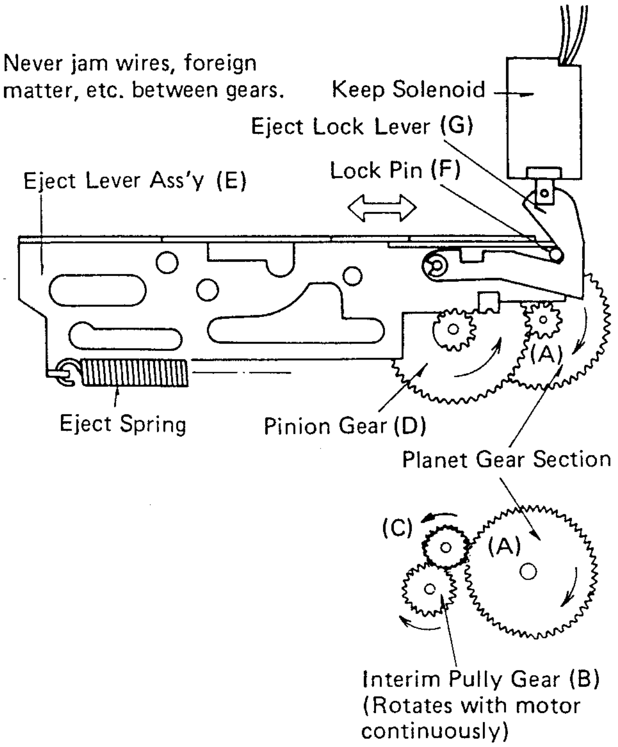

Never jam wires, foreign matter, etc. between gears.
Keep Solenoid
Eject Lock Lever (G)
Eject Lever Ass'y (E)
Lock Pin (F)
(A)
Eject Spring
Pinion Gear (D)
Planet Gear Section
(C)
(A)
Interim Pully Gear (B) (Rotates with motor continuously)

Figure 25

2. PAUSE AND EJECT OPERATION

(1) Pause operation: When the operating condition maintained by the keep solenoid is released by the key off or the pause button, the locked condition due to the eject lock lever is also released, and the cassette holder is raised to the loading slot by the powerful eject spring, but as the cassette guide is locked the cassette is not ejected and the micro switch for radio/tape +B is placed in the tape position, thus keeping the pause mode. When the power is turned on again, the mechanism returns to the playback mode automatically. (Note: Do not leave the unit in the pause mode for a long time.)

(2) Eject operation: In the eject operation, the cassette is ejected releasing the locked condition of the cassette guide by actuating the music sensor solenoid furthermore.

3. FF/REW OPERATION

(1) With the normal mode selected, the tape running direction in the FF mode is the same as the direction in the playback mode, and with the REW mode the direction is the reverse as that of FF. (With the reverse mode selected, this relation is reversed.) Releasing the FF or REW modes is conducted by pushing the play button or by the auto-reverse mechanism actuated at the tape end.

(2) First, the FF/REW solenoid (P) is actuated, then the trigger lever (R) is attracted, and this releases the lock of the R/F gear (H) thereby rotating the R/F gear. The R/F gear then engages with the R/F idler gear (L) rotating always and turns by 360 degrees. At the same time, the R/F lever

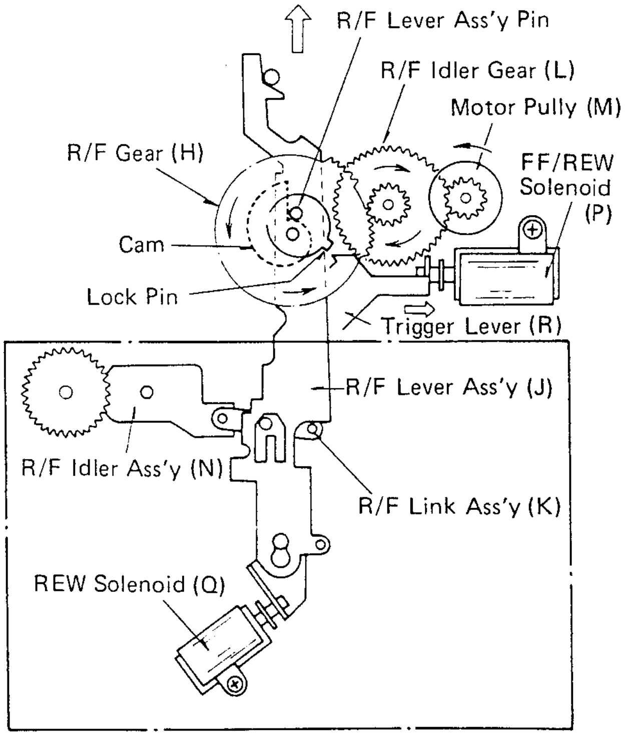

R/F Lever Ass'y Pin
R/F Idler Gear (L)
Motor Pully (M)
R/F Gear (H)
FF/REW Solenoid (P)
Cam
Lock Pin
Trigger Lever (R)
R/F Lever Ass'y (J)
R/F Idler Ass'y (N)
R/F Link Ass'y (K)
REW Solenoid (Q)

Figure 26

assembly (J) is raised toward the direction shown by the arrow in center of the figure by the cam mounted on the rear side of the R/F gear.

(3)-1 FF: With the R/F lever assembly raised, the pin (1) of the R/F link assembly (K) is slided to the left slot of the R/F lever assembly by the spring. Furthermore, the pin (2) of the R/F link assembly is raised to the direction shown by the arrow in center of the figure, and the R/F idler assembly (N) ganged with the pin (3) moves toward the flywheel and the reel in the take-up side, thus transferring the rotation.

(3)-2 REW: When the REW solenoid (Q) is actuated, the pin (1) of the R/F link assembly (K) is guided into the right slot of the R/F lever assembly (J). Furthermore, the pin (3) of the R/F link assembly (K) is raised to the direction shown by the arrow in center of the figure, and the R/F idler assembly (N) ganged with it is moved to the flywheel and the reel in the supply side, thus transferring the rotation.

4. AUTO REVERSE OPERATION

When the program solenoid is actuated, the lock by the R/F release lever is released and this pushes the change gear (T), thus rotating it.
Next, the change gear is engaged with the reverse idler gear (U) rotating always and rotates by 180 degrees. At the same time, the roller mounted on rear of the change gear moves the select lever and change the pinch roller in the opposite direction to reverse the tape travel direction. Furthermore, the slide switch in the head section is also moved to switch the head signal.

5. MUSIC SENSOR OPERATION

By touching the head slightly to the tape during the FF/REW mode of operation, non recorded portion of a tape between music programs is detected and processed in the control circuit. The processed output actuates the music sensor solenoid and releases the FF/REW lock, thus returning to the playback mode.

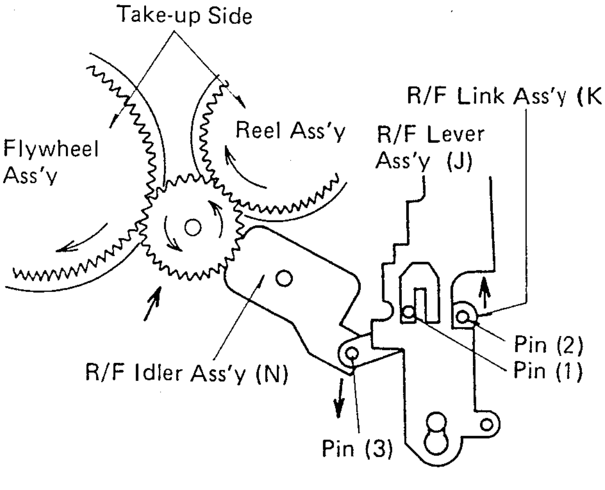

Take-up Side
R/F Link Ass'y (K)
Reel Ass'y
R/F Lever Ass'y (J)
Flywheel Ass'y
Pin (2)
Pin (1)
R/F Idler Ass'y (N)
Pin (3)

Figure 27

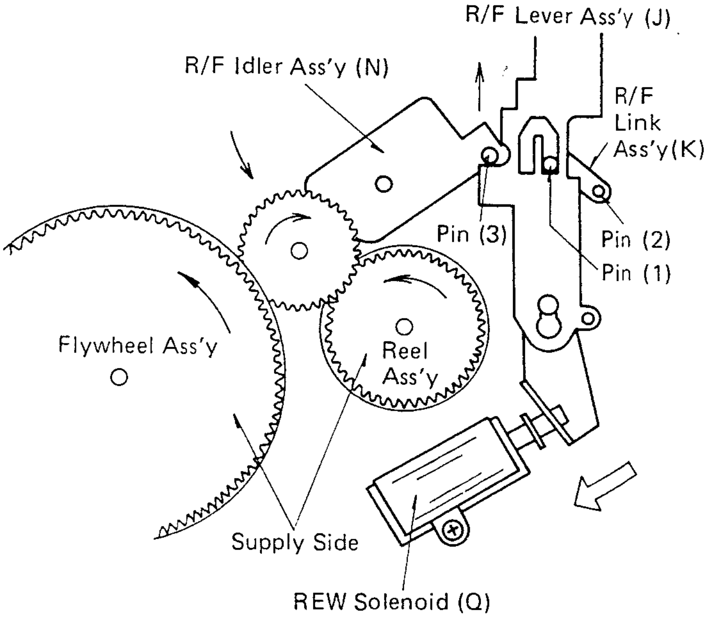

R/F Lever Ass'y (J)
R/F Idler Ass'y (N)
R/F Link Ass'y(K)
Pin (3)
Pin (2)
Pin (1)
Flywheel Ass'y
Reel Ass'y
Supply Side
REW Solenoid (Q)

Figure 28

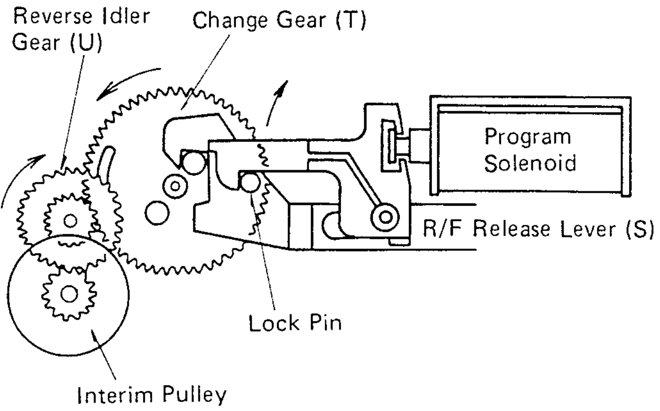
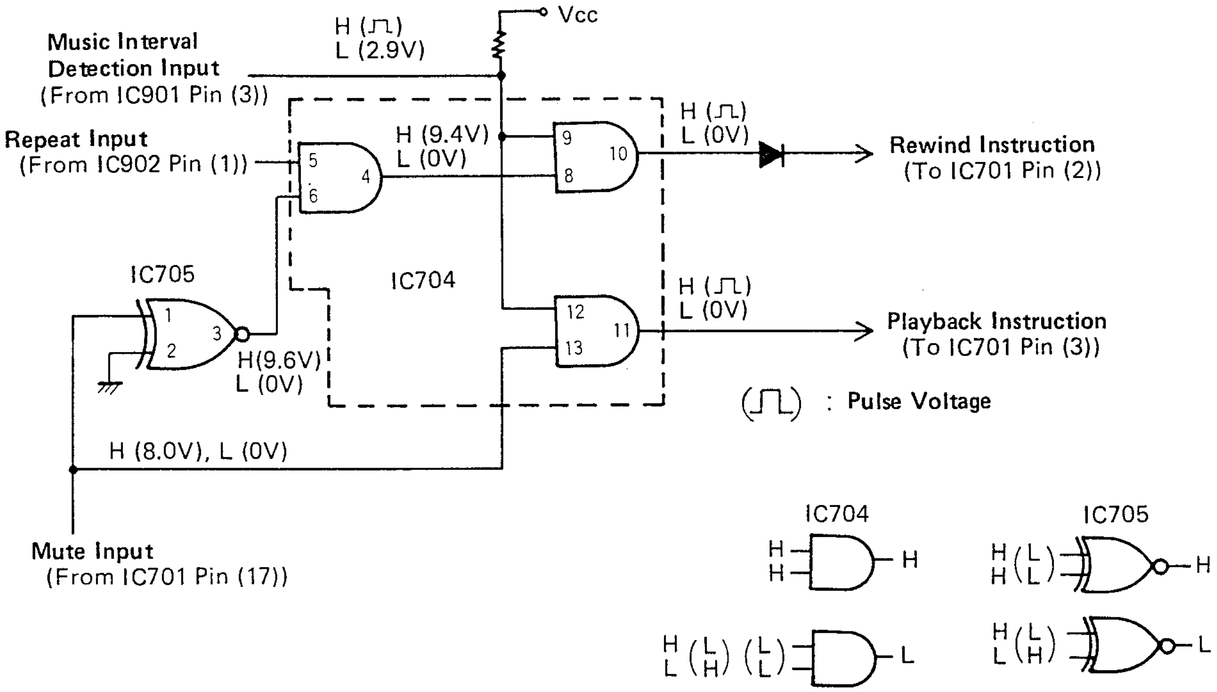

Reverse Idler Gear (U)
Change Gear (T)
Program Solenoid
R/F Release Lever (S)
Lock Pin
Interim Pulley

Figure 29

Description of Repeat Circuit

Since most part of the repeat circuit is comprised of logic circuits, it is difficult to indicate voltage values on the schematic diagram (because the values will vary from time to time depending upon the operation mode). Accordingly, the voltages are shown below along the route of signal flow for your reference in servicing.


Vcc
Music Interval Detection Input (From IC901 Pin (3))
H (⎍)
L (2.9V)
Repeat Input (From IC902 Pin (1))
5
6
4
H (9.4V)
L (0V)
9
8
10
H (⎍)
L (0V)
Rewind Instruction (To IC701 Pin (2))
IC705
1
2
3
H(9.6V)
L (0V)
IC704
12
13
11
H (⎍)
L (0V)
Playback Instruction (To IC701 Pin (3))
(⎍) : Pulse Voltage
H (8.0V), L (0V)
Mute Input (From IC701 Pin (17))
IC704
H
H
H
H L L
L H L
L
IC705
H L
H L
H
H L
L H
L

(1) In a conventional playback mode, pin (3) of IC705 and pin (6) of IC704 are set to the "H" level, and all other remaining pins are maintained at the "L" level.

(2) With the repeat switch pushed, the "H" level signal is input to pin (5) of IC704 and this makes pin (4) of the same IC to the "H" level. (The pin (5) is maintained at the "H" level as long as the repeat switch is not released.)

(3) When a music program is finished, the music sensor circuit detects the finish and feeds a pulse signal from pin (3) of IC901 to pin (9) of IC704. Since pin (8) has been set to the "H" level, the rewind instruction pulse is developed from pin (10), thus the rewind operation is conducted.
(Though the pulse signal applied to pin (9) is also applied to pin (12), no output is developed from pin (11) because of pin (13) maintained at the "L" level.)

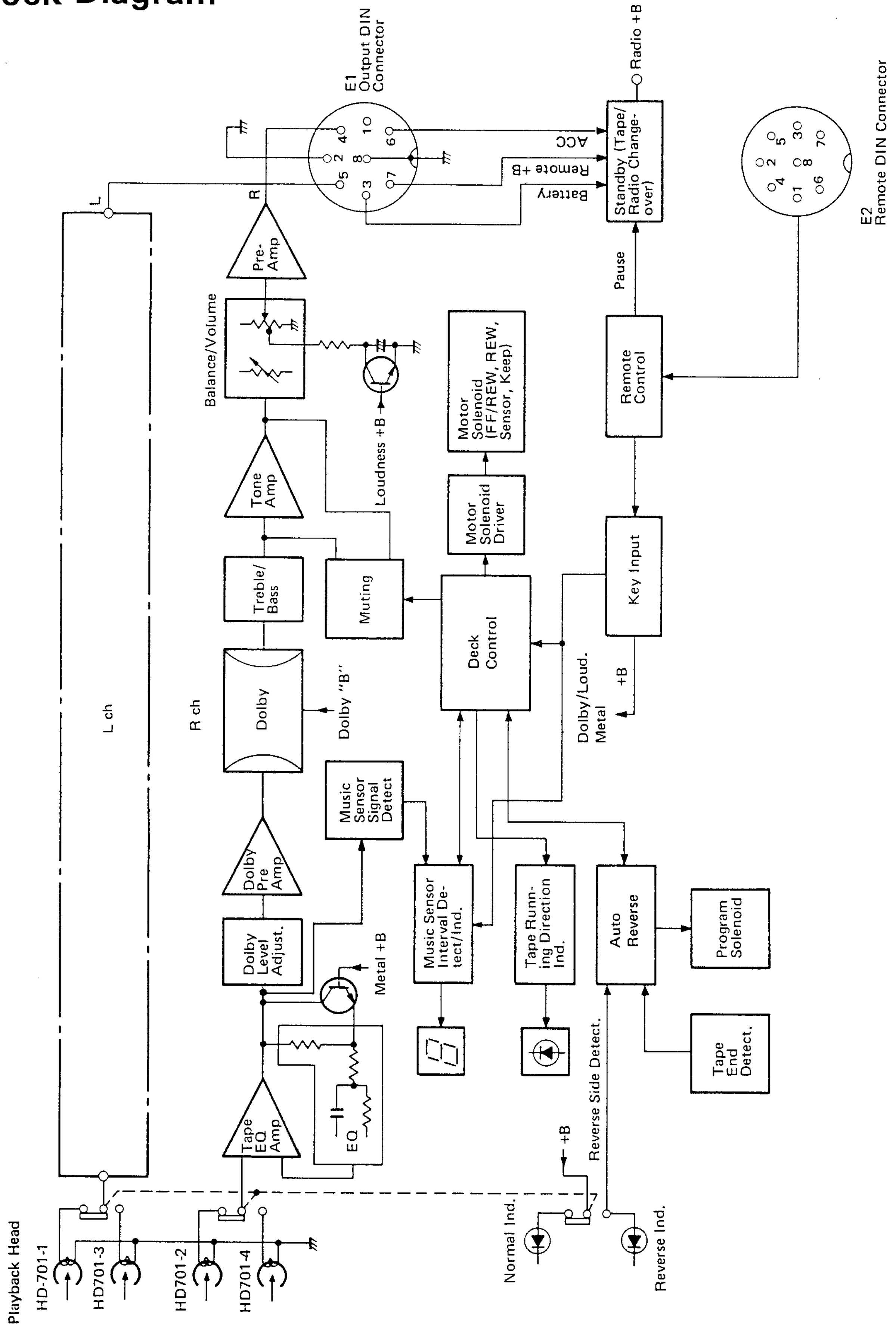
(4) During the rewind mode of operation, as the mute signal ("H" level) is being applied to each pin (1) of IC705 and pin (13) of IC704, each pin (3) of IC705 and pin (4) of IC704 is changed to the "L" level.

(5) When the music sensor circuit detects a beginning of a music program during the rewind operation, a pulse signal is again input from pin (3) of IC901 to pin (12) of IC704. Since pin (13) is set to the "H" level, pin (11) develops the playback instruction signal and the playback operation is conducted.

(6) With the playback mode actuated, the mute signal from IC701 is interrupted, and pin (13) of IC704 and pin (1) of IC705 change to the "L" level. As a result, pin (3) of IC705 goes "H" level and then pin (4) of IC704 also goes "H" level, thus returning to the state shown in the step 2.

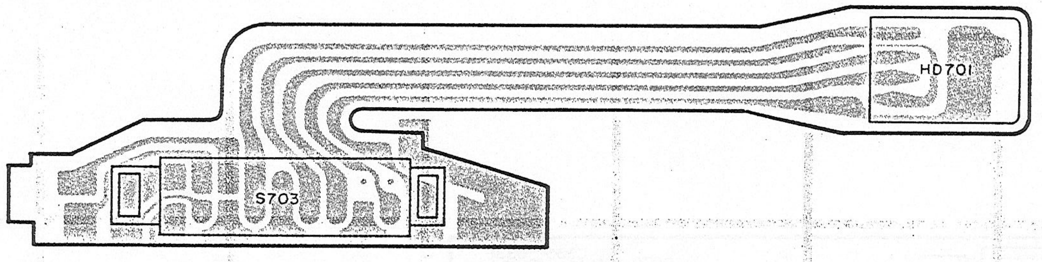
The repeat operation is performed by repeating the procedures shown above.
The IC704 (1 – 3) constitues the circuit that functions to release the repeat operation when one of the fast forward, rewind, and music sensor switches is pushed during the repeat operation.
The IC704 (pins 11 – 13) is also used to develop the playback operating instruction during the music sensor mode.

Block Diagram

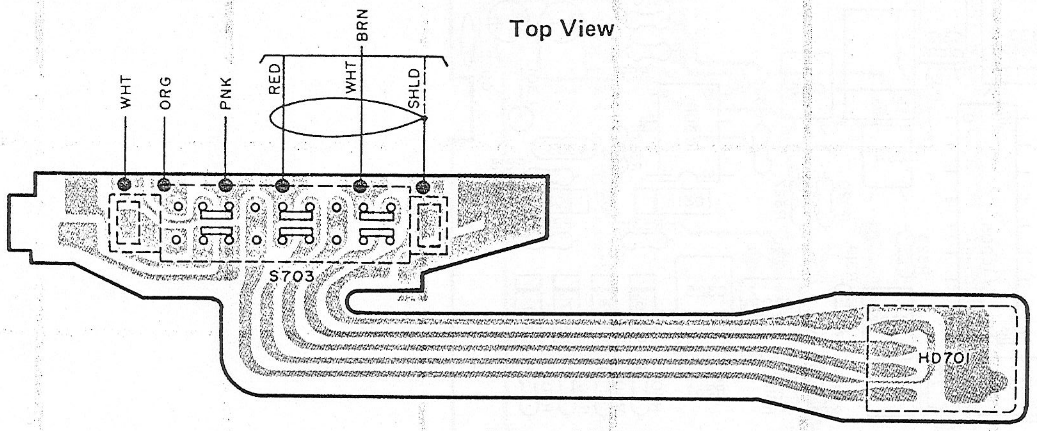

Playback Head
HD-701-1
HD701-3
HD701-2
HD701-4
Tape EQ Amp
EQ
Metal +B
Dolby Level Adjust.
Dolby Pre Amp
Dolby
Dolby "B"
Treble/ Bass
Tone Amp
Balance/Volume
Loudness +B
Pre-Amp
L ch
R ch
L
R
E1 Output DIN Connector
1
2
3
4
5
6
7
8
ACC
Remote +B
Battery
Standby (Tape/ Radio Change-over)
Radio +B
Pause
Remote Control
E2 Remote DIN Connector
Key Input
+B
Dolby/Loud. Metal
Deck Control
Muting
Motor Solenoid Driver
Motor Solenoid (FF/REW, REW, Sensor, Keep)
Music Sensor Signal Detect
Music Sensor Interval De-tect/Ind.
Tape Runn-ing Direction Ind.
Auto Reverse
Program Solenoid
Tape End Detect.
Reverse Side Detect.
Normal Ind.
Reverse Ind.

Parts Layout on P.C. Boards

- Head/Switch P.C. Board

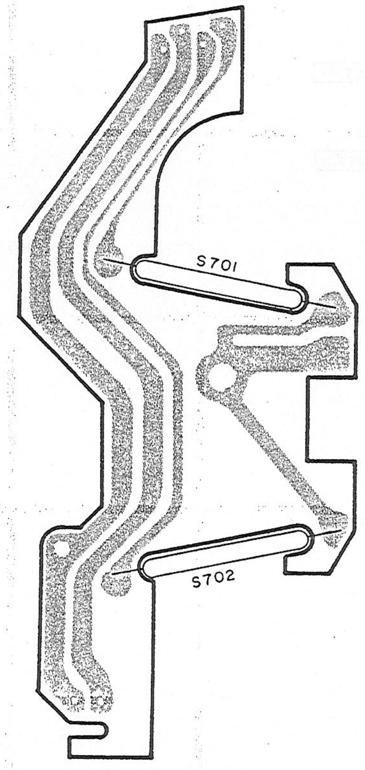


Top View

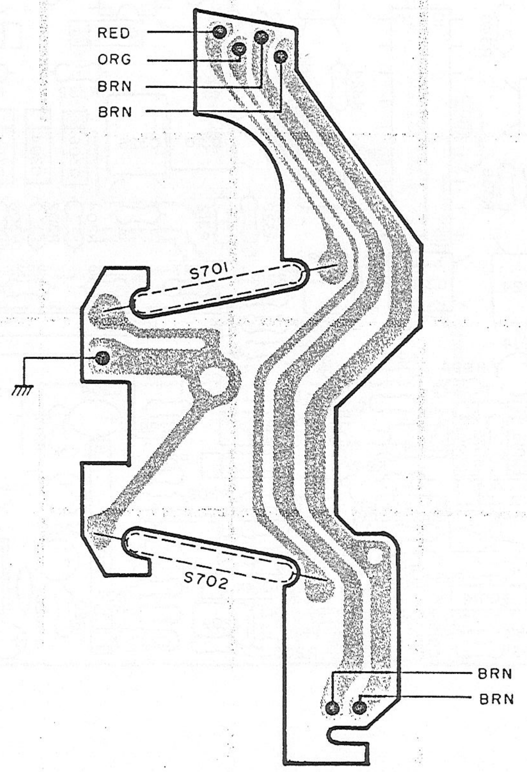

WHT
ORG
PNK
RED
WHT
BRN
SHLD
S703
HD701

Bottom View

- Reed Switch P.C. Board

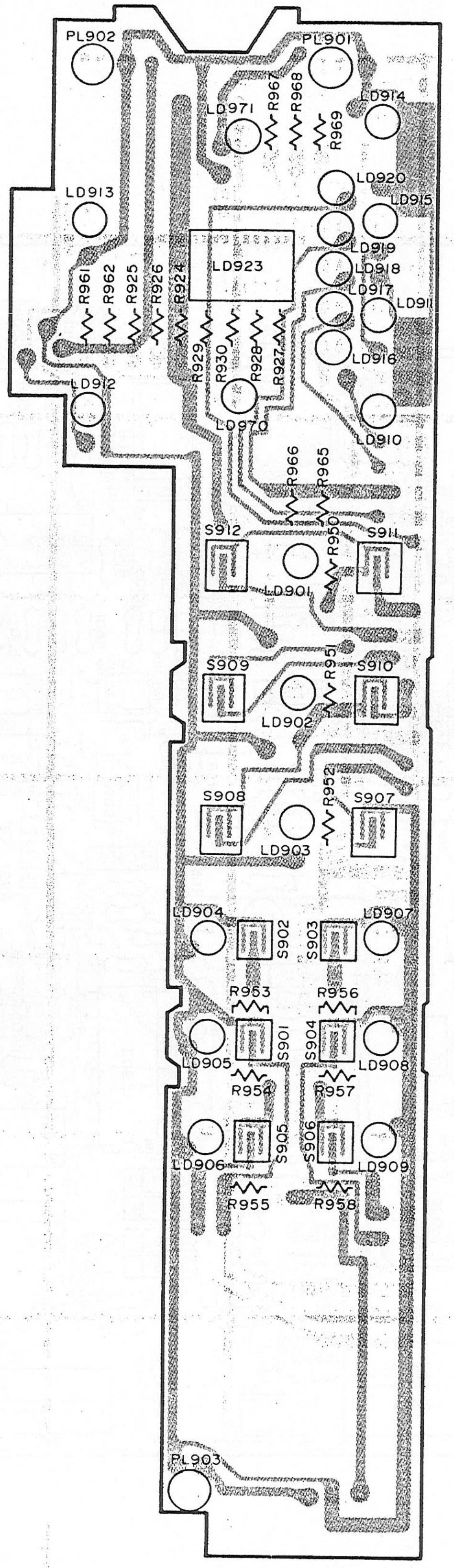


Top View

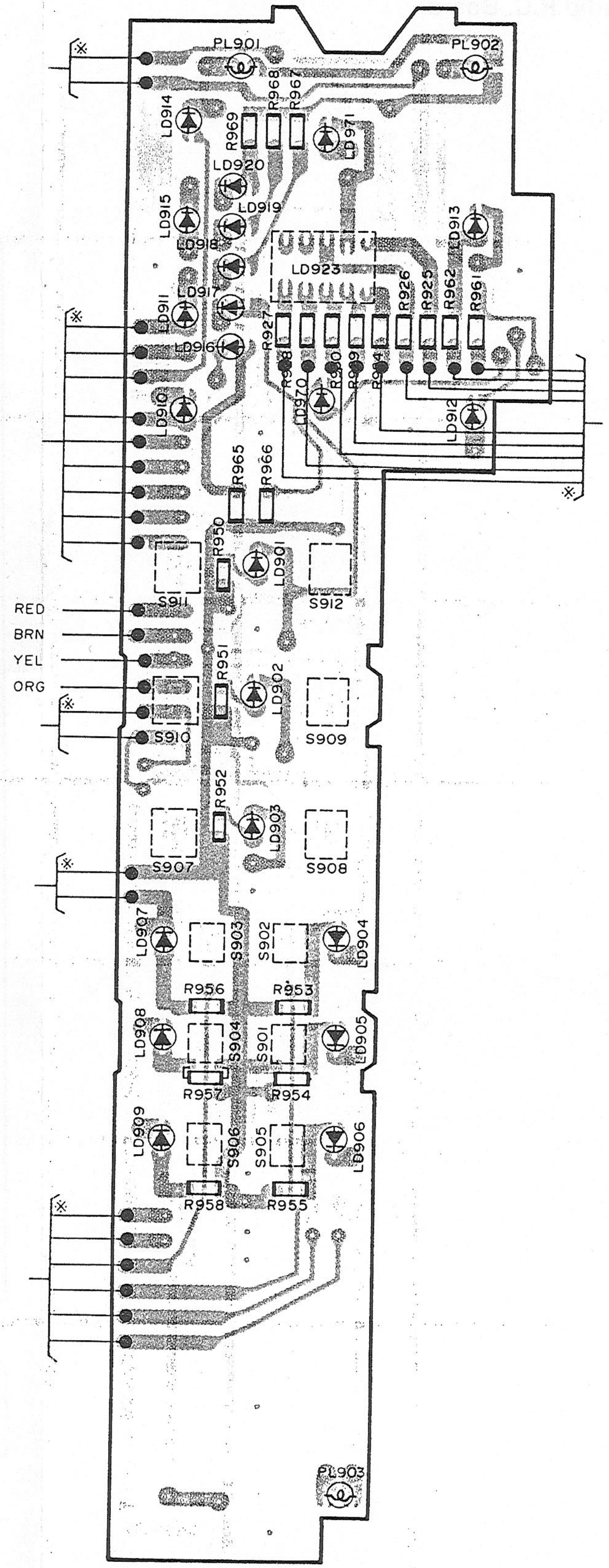

RED
ORG
BRN
BRN
S701
S702
BRN
BRN

Bottom View

- Switch/LED P.C. Board

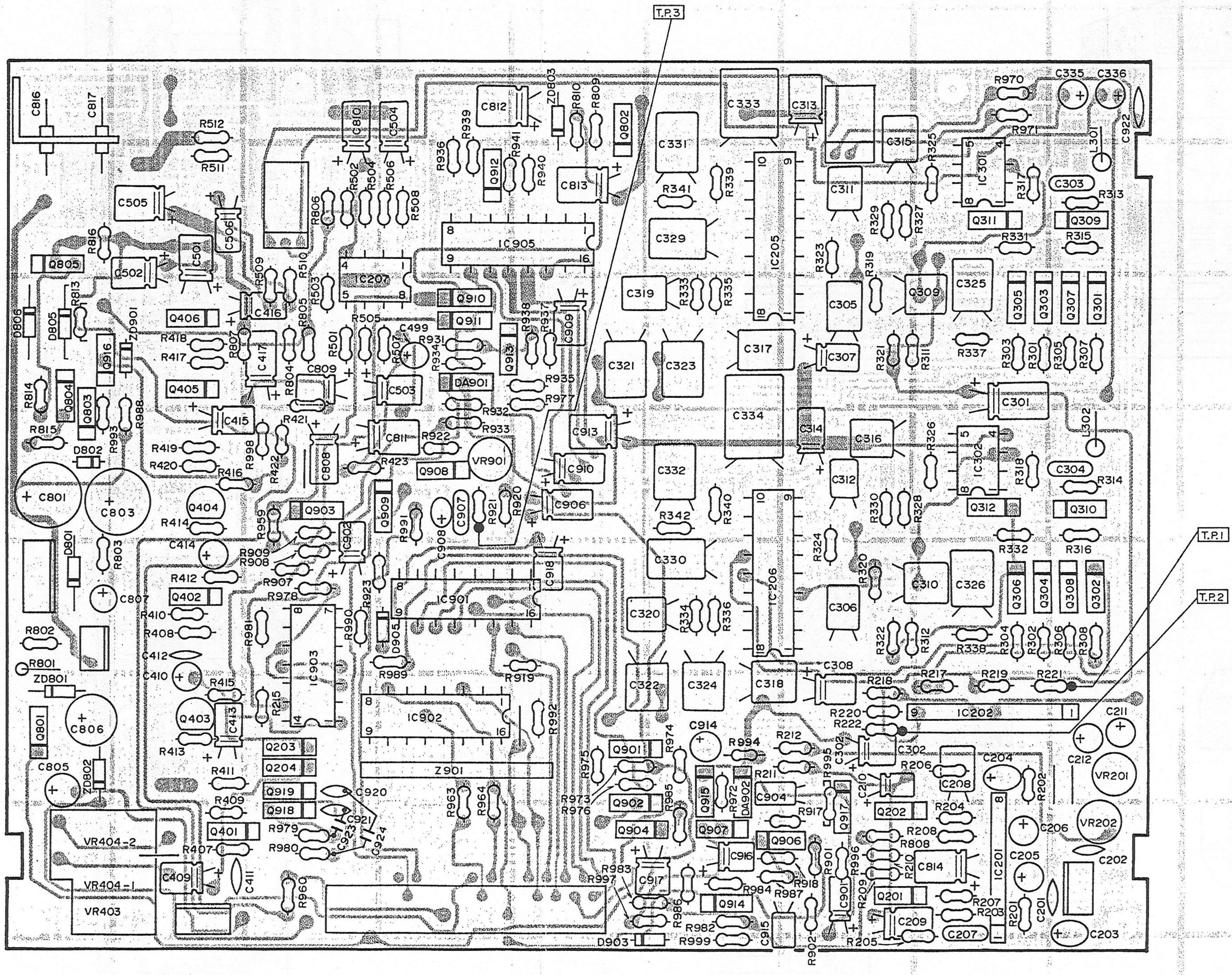

PL902
PL901
LD971
R967
R968
R969
LD914
LD913
LD920
LD915
LD923
LD919
LD918
LD917
LD911
LD916
R961
R962
R925
R926
R924
R929
R930
R928
R927
LD912
LD970
LD910
R966
R965
S912
S911
R950
LD901
S909
S910
R951
LD902
S908
S907
R952
LD903
LD904
LD907
S902
S903
R953
R956
LD905
S901
S904
LD908
R954
R957
LD906
S905
S906
LD909
R955
R958
PL903

Top View


※
PL901
PL902
R968
R967
LD914
R969
LD971
LD920
LD919
LD915
LD918
LD917
LD913
LD923
R926
R925
R962
R961
LD911
LD916
R927
LD970
LD910
LD912
R965
R966
R950
LD901
S911
S912
RED
BRN
YEL
ORG
R951
LD902
S910
S909
R952
LD903
S907
S908
LD907
S903
S902
LD904
R956
R953
LD908
S904
S901
LD905
R957
R954
LD909
S906
S905
LD906
R958
R955
PL903

Bottom View

● Audio P.C. Board


T.P.3
T.P.1
T.P.2
C816
C817
R512
R511
C505
C502
C501
C506
Q805
R816
R813
D806
D805
ZD901
Q916
Q904
Q803
R814
R815
D802
R993
R988
C801
C803
D801
R803
C807
R802
R801
ZD801
Q801
C806
C805
ZD802
VR404-2
VR404-1
VR403
C409
C411
R407
Q401
Q406
R418
R417
Q405
C415
R419
R420
R416
Q404
R414
C414
R412
Q402
R410
R408
C412
C410
R415
Q403
C413
R413
R411
R409
C416
C417
R807
R809
R510
R503
R805
R804
C809
R421
R998
R422
C808
R506
C810
C504
R502
R504
R508
R806
IC207
R501
R505
C499
C507
C503
C811
R423
R922
Q908
Q903
R959
R909
R908
R907
R978
C902
Q909
R991
R981
R990
R923
IC903
R215
Q203
Q204
Q919
Q918
R979
R980
C920
C921
C923
C924
R960
D905
R989
IC902
Z901
R963
R964
C812
ZD803
R810
R809
Q802
R939
R936
R941
Q912
R940
C813
IC905
Q910
Q911
R931
R934
R938
R937
C909
Q913
DA901
R935
R977
R932
R933
VR901
C913
C910
C906
C907
C908
R921
R920
C918
IC901
R919
R992
R975
R973
R976
Q901
Q902
Q904
R974
R983
R997
C917
R986
R982
R999
D903
C331
R341
R339
C329
C319
R333
R335
C321
C323
C332
R342
R340
C330
C320
R334
R336
C322
C324
C914
R994
Q915
R972
DA902
R985
Q907
C916
Q906
Q914
R984
R918
R987
C915
R902
C333
C313
C205
R323
C311
C305
C317
C307
C334
C314
C316
C312
IC206
R324
R320
C306
C318
C308
R212
R211
C904
R917
C901
R901
R996
R995
C302
C315
R325
R329
R327
R319
C309
R321
R311
C325
R337
IC301
R317
Q311
R331
R970
C335
C336
L301
C922
R971
C303
R313
Q309
R315
Q305
Q303
Q307
Q301
R303
R301
R305
R307
C301
L302
R326
IC302
R318
C304
R314
Q312
Q310
R330
R328
R332
R316
C310
C326
Q306
Q304
Q308
Q302
R322
R312
R338
R304
R302
R306
R308
R217
R219
R221
R218
R220
R222
IC202
C211
C212
VR201
VR202
C210
C204
C208
R206
R202
Q202
R204
C206
R208
R808
R209
R210
C814
C205
C202
R207
R203
Q201
C209
C207
R205
IC201
R201
C201
C203
9
1
10
18
8
16

Top View

IC201

1	1.1V
2	0.6V
3	4.6V
4	6.8V
5	0V
6	4.6V
7	0.6V
8	1.1V

IC202

1	8.8V
2	5.2V
3	5.2V
4	4.0V
5	0V
6	4.0V
7	5.2V
8	5.2V
9	——

IC901

1	0 V
2	0.5V
3	0 V
4	2.7V
5	5.0V(0V)
6	0V(5.8V)
7	5.8V
8	0 V
9	0V(5.2V)
10	0V(5.2V)
11	0V(5.2V)
12	0V(5.2V)
13	0V(5.2V)
14	0V(5.2V)
15	0V(5.2V)
16	5.8V

IC902

1	0V(11.6V)
2	13V
3	0V(11.6V)
4	13V
5	0V(11.6V)
6	13V
7	0V(11.6V)
8	0V
9	13V
10	13V
11	——
12	8.8V(1.6V)
13	8.8V(1.6V)
14	8.8V(1.6V)
15	8.8V(1.6V)
16	13V

IC205

1	5.2V
2	5.0V
3	5.0V
4	4.8V
5	0V
6	4.8V
7	5.0V
8	5.2V
9	5.0V
10	5.0V
11	4.8V
12	4.3V
13	8.8V
14	6.4V
15	5.2V
16	4.3V
17	4.8V
18	5.0V

IC206

1	5.2V
2	5.0V
3	5.0V
4	4.8V
5	0V
6	4.8V
7	5.0V
8	5.2V
9	5.0V
10	5.0V
11	4.8V
12	4.3V
13	8.8V
14	6.4V
15	5.2V
16	4.3V
17	4.8V
18	5.0V

IC903

1	0V(7.2V)
2	0V(7.2V)
3	0V(5.2V)
4	0V(5.2V)
5	0V(7.2V)
6	0V
7	0V
8	0V
9	0V(7.2V)
10	0V(5.2V)
11	0V(5.2V)
12	0V(7.2V)
13	0V(7.0V)
14	7.2V

IC905

1	5.8V
2	——
3	——
4	4.2V
5	5.8V(0V)
6	——
7	4.2V
8	——
9	0V
10	4.2V(0V)
11	4.2V(0V)
12	4.2V(0V)
13	4.2V(0V)
14	4.2V(0V)
15	0V
16	2.3V

IC207

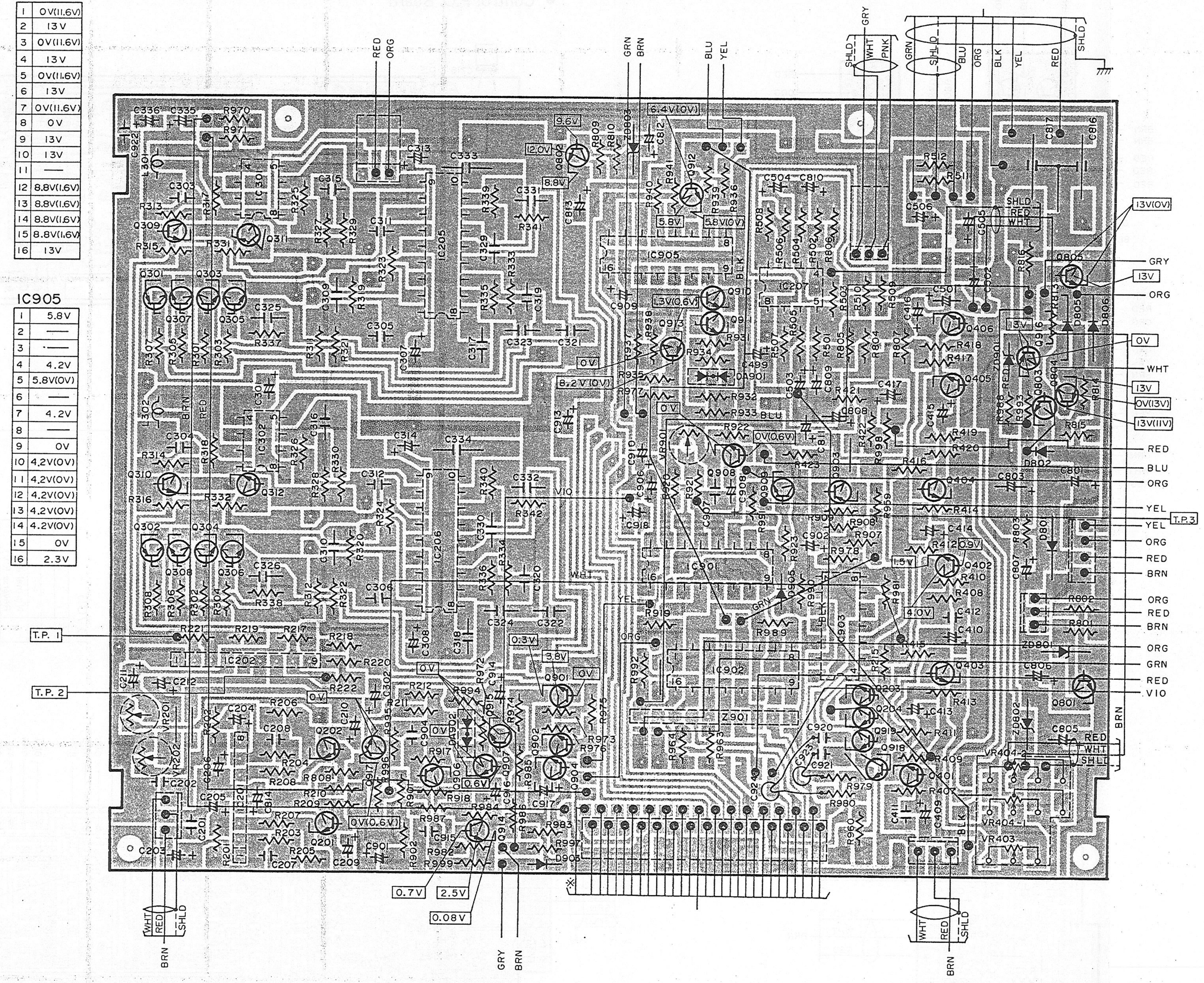
1	6.2V
2	6.2V
3	5.2V
4	0V
5	5.2V
6	6.2V
7	6.2V
8	11.8V

IC301

1	5.2V
2	5.2V
3	5.2V
4	0V
5	5.0V
6	5.0V
7	5.0V
8	8.8V

IC302

1	5.2V
2	5.2V
3	5.2V
4	0V
5	5.0V
6	5.0V
7	5.0V
8	8.8V


RED
ORG
GRN
BRN
BLU
YEL
SHLD
GRY
WHT
PNK
GRN
SHLD
BLU
ORG
BLK
YEL
RED
SHLD
13V(0V)
GRY
13V
ORG
0V
WHT
13V
0V(13V)
13V(11V)
RED
BLU
ORG
YEL
T.P.3
YEL
ORG
RED
BRN
ORG
RED
BRN
ORG
GRN
RED
VIO
BRN
T.P. 1
T.P. 2
9.6V
12.0V
8.8V
6.4V(0V)
5.8V
5.8V(0V)
1.3V(0.6V)
0V
8.2V(0V)
0V(0.6V)
1.5V
0.9V
4.0V
0.3V
3.8V
0V
0V
0.6V
0V(0.6V)
0.7V
2.5V
0.08V
IC205
IC206
IC202
IC207
IC901
IC902
IC905
IC301
IC302
Z901
VR201
VR202
VR403
VR404
VR901
WHT
RED
SHLD
BRN
GRY
BRN
WHT
RED
SHLD
BRN

Bottom View

Q201, 202

E	C	B
3.0V	4.6V	0V(1.8V)

Q203, 204

E	C	B
0V	0V	0V(0.6V)

Q301, 302

E	C	B
8.8V	8.0V	8.2V

Q303～Q312

E	C	B
5.2V	5.2V	5.8V

Q401

E	C	B
1.5V	4.0V	0.9V

Q403, 404

E	C	B
0V	0V	0V(0.6V)

Q405, 406

E	C	B
0V	0V	1.4V(0.2V)

Q801

E	C	B
6.0V	9.4V	6.5V

Q803

E	C	B
0V	13V(0V)	0V(0.6V)

Q902

E	C	B
0.3V	0.3V	0.8V

Q903

E	C	B
13V	13V(0V)	12.4V(13V)

Q904

E	C	B
0V	0.6V	0V

Q906

E	C	B
0.2V	2.5V	0.5V

Q909

E	C	B
0V	5.0V(0V)	0V

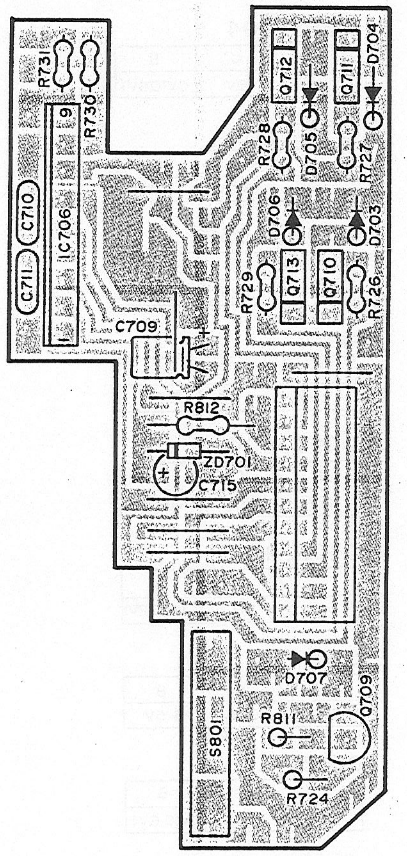
Q910, 911

E	C	B
0V(5.0V)	13.0V	0V(5.2V)

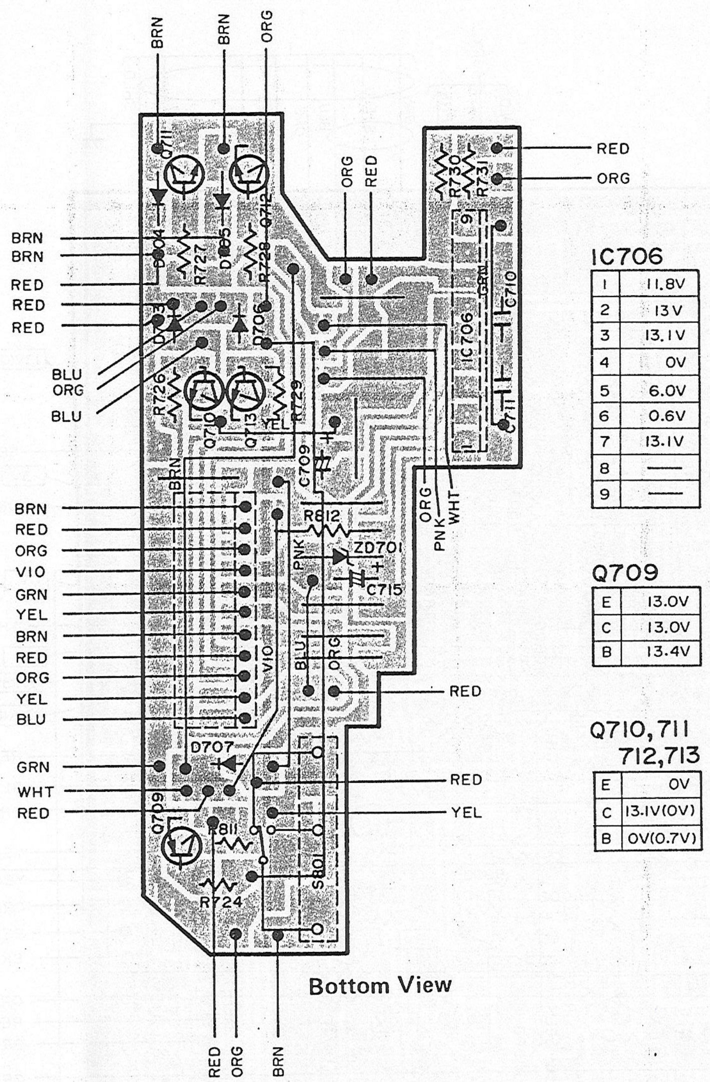
Q918, 919

E	C	B
0V(5.2V)	7.2V	——

● Deck Control P.C. Board


C711
C710
IC706
R731
R730
C709
R812
ZD701
C715
S801
R811
R724
D707
Q709
Q712
Q711
D704
R728
D705
R727
D706
D703
R729
Q713
Q710
R726

Top View


BRN
BRN
ORG
ORG
RED
RED
ORG
BRN
BRN
RED
RED
RED
BLU
ORG
BLU
BRN
RED
ORG
VIO
GRN
YEL
BRN
RED
ORG
YEL
BLU
GRN
WHT
RED
RED
RED
YEL
ORG
PNK
WHT
RED
ORG
BRN
Q711
Q712
D704
R727
D705
R728
D706
D703
R726
R729
Q710
Q713
C709
R812
ZD701
C715
IC706
R730
R731
C710
C711
D707
Q709
R811
R724
S801
VIO
BLU
ORG
PNK

Bottom View

IC706

1	11.8V
2	13V
3	13.1V
4	0V
5	6.0V
6	0.6V
7	13.1V
8	——
9	——

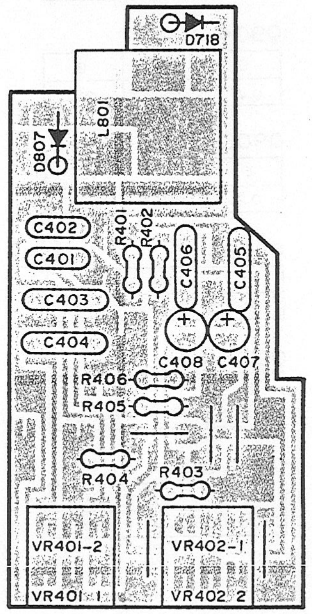
Q709

E	13.0V
C	13.0V
B	13.4V

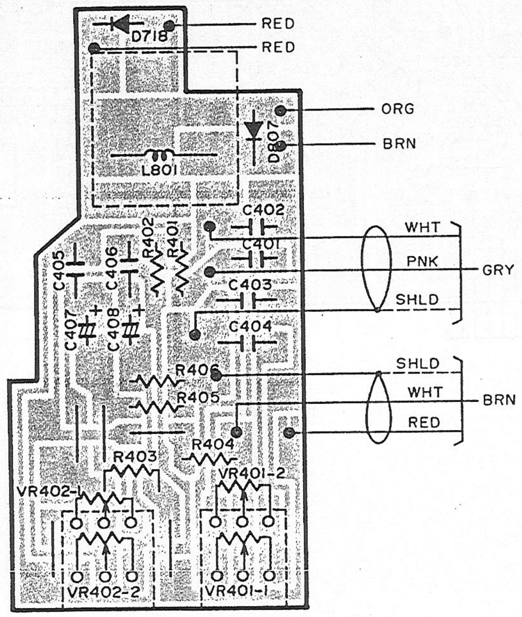
Q710, 711
712, 713

E	0V
C	13.1V(0V)
B	0V(0.7V)

● Treble/Bass P.C. Board

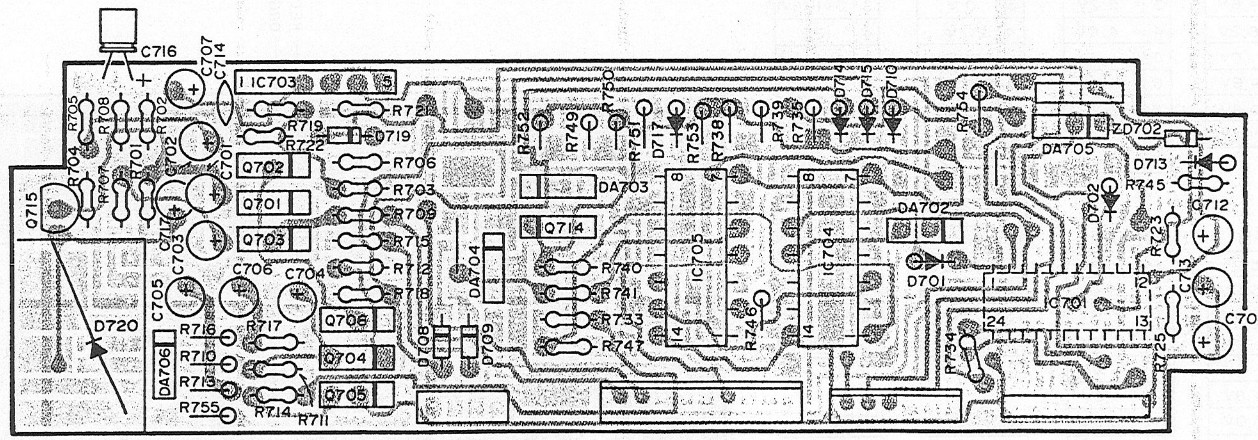

D718
L801
D807
C402
C401
C403
C404
R401
R402
C406
C405
C408
C407
R406
R405
R404
R403
VR401-2
VR401-1
VR402-1
VR402 2

Top View


RED
RED
ORG
BRN
WHT
PNK
SHLD
GRY
SHLD
WHT
RED
BRN
D718
D807
L801
C402
C401
C403
C404
C405
C406
C407
C408
R401
R402
R403
R404
R405
R406
VR402-1
VR402-2
VR401-1
VR401-2

Bottom View

● Control P.C. Board


C716
C707
C714
IC703
Q715
R704
R705
R707
R708
R701
R702
C702
C701
C703
C717
C705
C706
C704
R719
R722
Q719
R721
R706
R703
R709
R715
R712
R718
R716
R710
R713
R717
R755
R714
R711
Q702
Q701
Q703
Q706
Q704
Q705
DA706
D720
D708
D709
DA704
Q714
R752
R749
R750
R751
D717
DA703
R740
R741
R733
R747
R753
R738
IC705
R746
R739
R735
D714
D715
D710
IC704
DA702
D701
R754
R734
IC701
DA705
ZD702
D713
D702
R745
C712
R723
C713
R725
C708

Top View

IC703

1	12.5V (0V)
2	0V (8.3V)
3	0V
4	9.7V
5	9.8V (4.5V)

Q701, 703

E	0V
C	12.5V (0V)
B	0V (0.7V)

Q702, 704
705, 706

E	0V (9.6V)
C	9.7V
B	0V (0.3V)

Q715

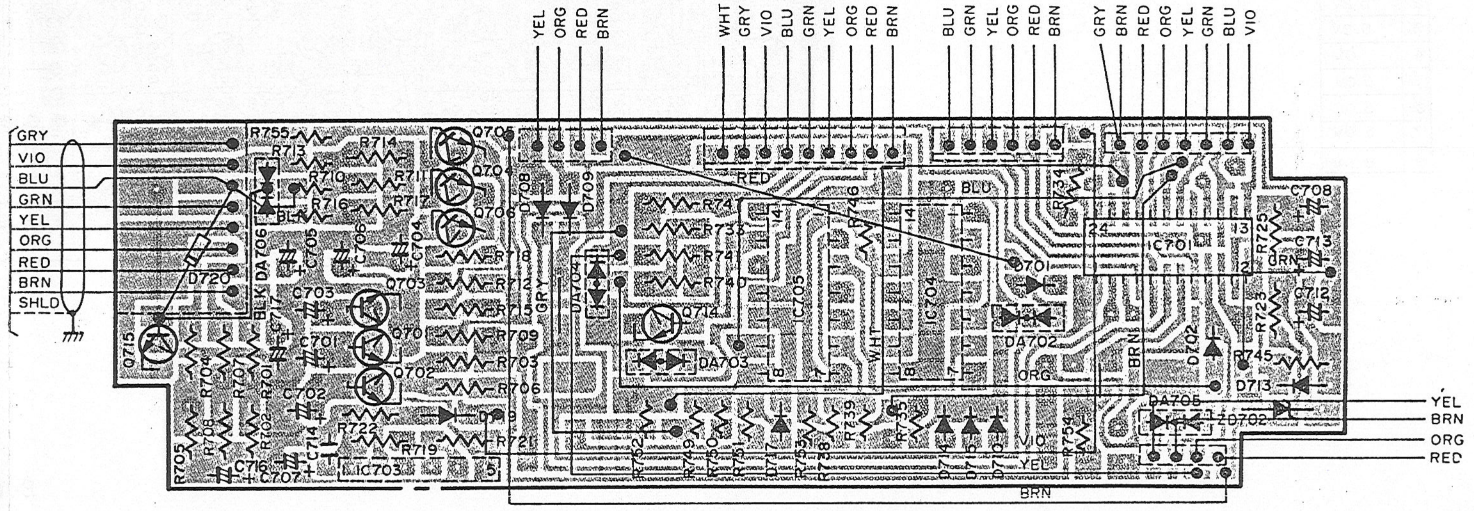
E	0V
C	0.7V (0V)
B	0V (11.5V)

IC701

1	FF (8.9V)
2	REW (8.9V)
3	PLAY (9.0V)
4	Program (5.8V)
5	
6	
7	Music Sensor (5.6V)
8	Return Eject (11.6V)
9	13.0V
10	Pause (8.3V)
11	4.6V
12	13.1V
13	Normal (0V) Reverse (13.1V)
14	4.0V
15	0V
16	Sensor FF/REW (0V) Others (3.8V)
17	Mute (8.1V)
18	11.7V
19	Keep (8.1V)
20	REW (8.1V)
21	FF/REW (8.1V)
22	Sensor (8.1V)
23	
24	9.8V

IC705

1	
2	
3	
4	Normal (9.6V) Reverse (0V)
5	REW (7.8V) FF, PLAY (0V)
6	Normal (0V) Reverse (6.4V)
7	0V
8	Pack Down (6.7V)
9	Keep (8.1V)
10	Loading (0V) Others (9.7V)
11	
12	
13	
14	9.8V


YEL
ORG
RED
BRN
WHT
GRY
VIO
BLU
GRN
YEL
ORG
RED
BRN
BLU
GRN
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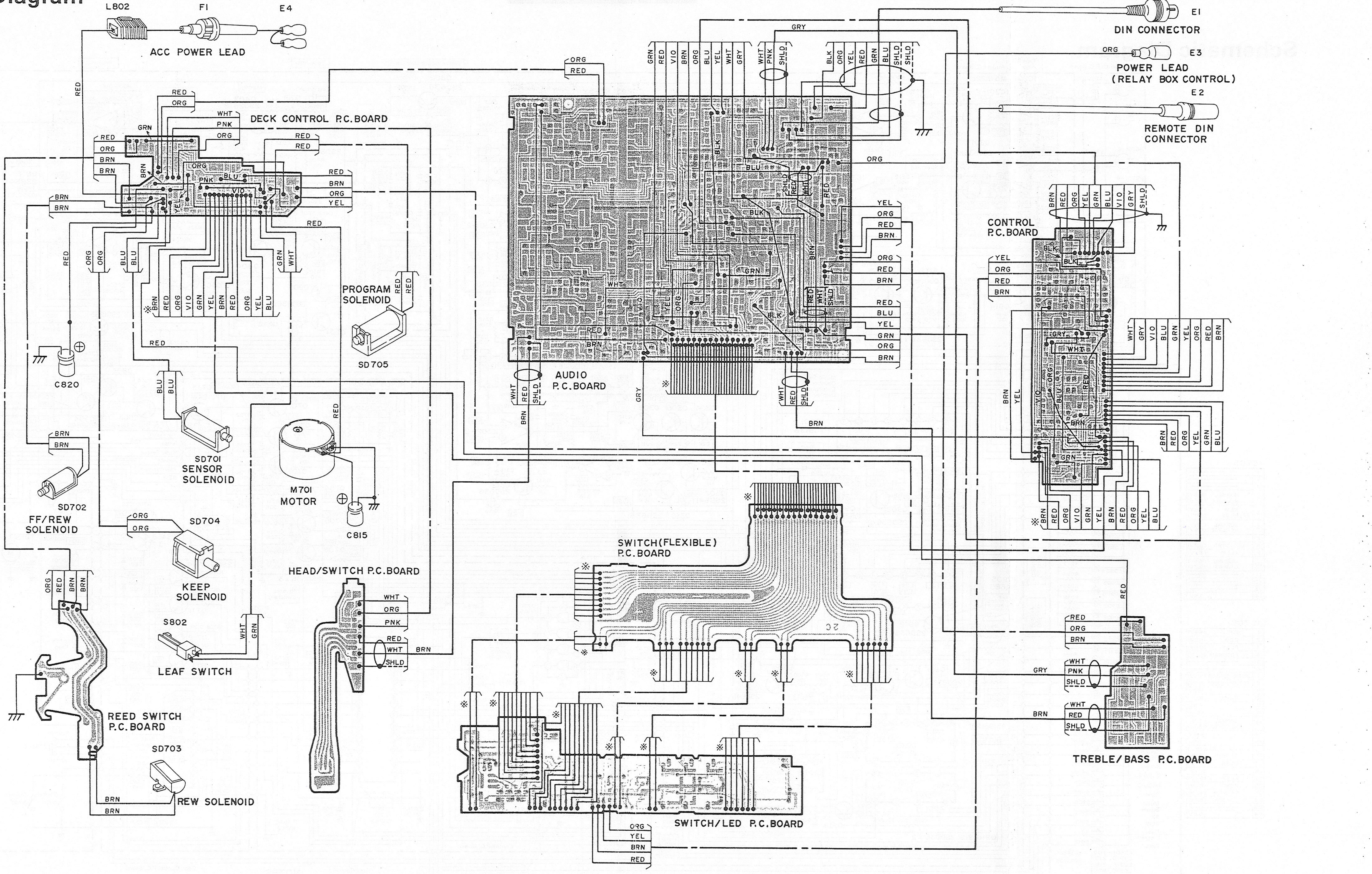
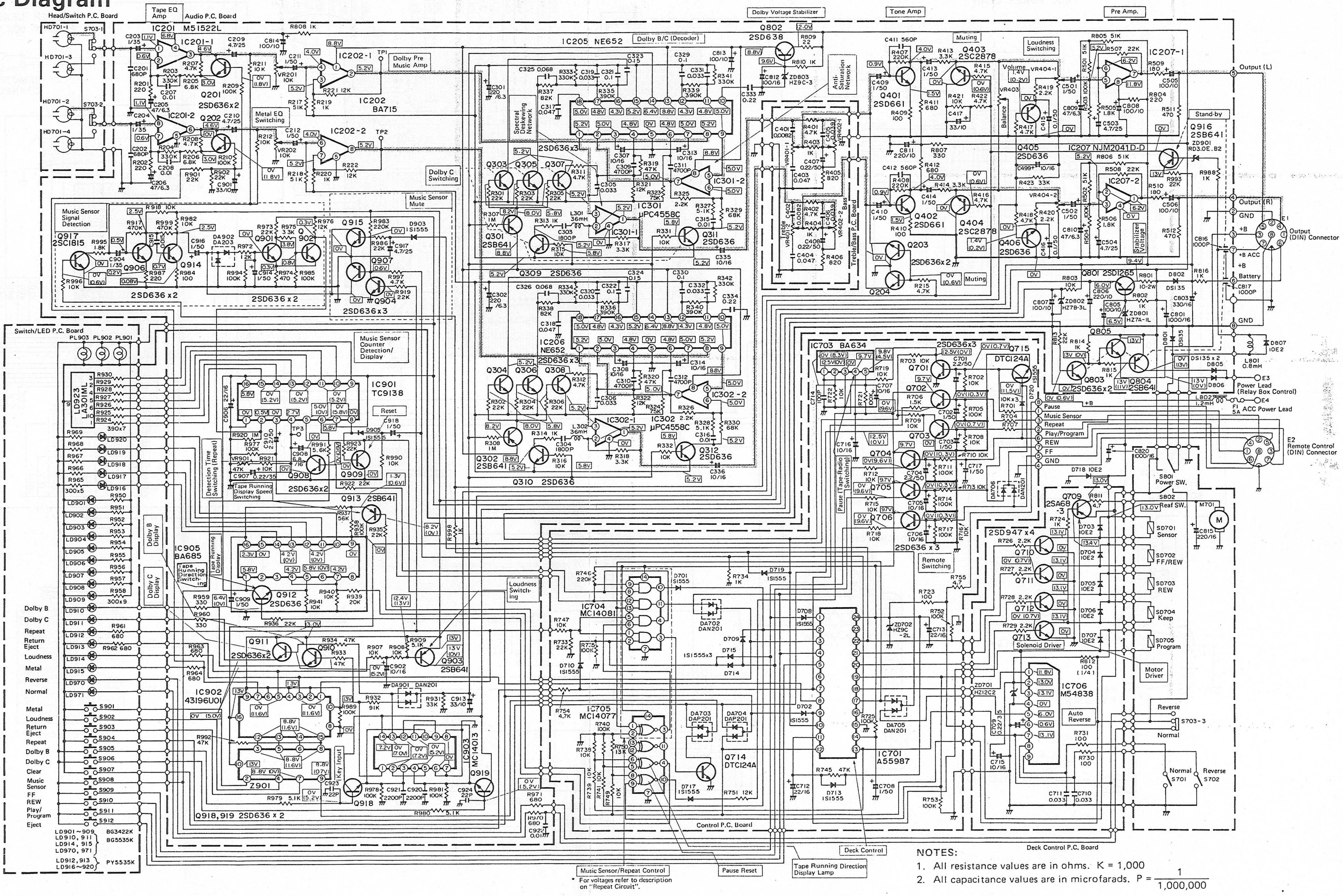
ORG
RED
BRN
GRY
BRN
RED
ORG
YEL
GRN
BLU
VIO
GRY
VIO
BLU
GRN
YEL
ORG
RED
BRN
SHLD
YEL
BRN
ORG
RED
R755
R713
R714
R710
R716
R711
R717
R718
R712
R715
R709
R703
R706
R719
R720
R705
R704
R701
R702
R722
C716
C707
C714
C717
C705
C706
C704
C703
C701
C702
IC703
Q705
Q704
Q706
Q703
Q701
Q702
Q715
D720
DA706
BLK
D708
D709
DA704
Q714
DA703
R741
R733
R747
R740
R746
R752
R749
R750
R751
R753
R738
R739
R735
IC705
IC704
WHT
RED
BLU
R734
DA702
ORG
VIO
YEL
BRN
R754
IC701
DA705
ZD702
D713
D702
R745
R723
R725
C708
C713
C712
GRN

Bottom View

Wiring Diagram


L802
F1
E4
ACC POWER LEAD
DECK CONTROL P.C.BOARD
E1
DIN CONNECTOR
E3
POWER LEAD
(RELAY BOX CONTROL)
E2
REMOTE DIN CONNECTOR
AUDIO P.C.BOARD
CONTROL P.C.BOARD
PROGRAM SOLENOID
SD705
C820
SD701
SENSOR SOLENOID
M701
MOTOR
C815
SD702
FF/REW SOLENOID
SD704
KEEP SOLENOID
S802
LEAF SWITCH
HEAD/SWITCH P.C.BOARD
REED SWITCH P.C.BOARD
SD703
REW SOLENOID
SWITCH(FLEXIBLE) P.C.BOARD
SWITCH/LED P.C.BOARD
TREBLE/BASS P.C.BOARD
※

Schematic Diagram


Head/Switch P.C. Board
Tape EQ Amp
Audio P.C. Board
IC201 M51522L
IC201-1
IC201-2
IC202-1
IC202-2
IC202 BA715
Dolby Pre Music Amp
Metal EQ Switching
Dolby C Switching
Music Sensor Mute
Music Sensor Signal Detection
IC205 NE652
Dolby B/C (Decoder)
Spectral Skewing Network
Anti-Saturation Network
Dolby Voltage Stabilizer
Tone Amp
Muting
Loudness Switching
Pre Amp.
Volume
Balance
Treble/Bass P.C. Board
Treble
Bass
Stabilizer Voltage
IC207 NJM2041D-D
IC207-1
IC207-2
Stand-by
Output (L)
Output (R)
GND
Output (DIN) Connector
+B ACC
+B
Battery
Power Lead (Relay Box Control)
ACC Power Lead
E2 Remote Control (DIN) Connector
IC301 μPC4558C
IC302 μPC4558C
IC206 NE652
Switch/LED P.C. Board
LD923 LA301ML
IC901 TC9138
Reset
Music Sensor Counter Detection/ Display
Detection Time Switching (Repeat)
Tape Running Display Speed Switching
Dolby B Display
Dolby C Display
IC905 BA685
Tape Running Direction Switching
Tape Running Display
IC902 43196U01
IC903 MC14013
Key Input
Loudness Switching
IC703 BA634
Pause (Tape-Radio Switching)
Remote Switching
IC704 MC14081
IC705 MC14077
IC701 A55987
IC706 M54838
Auto Reverse
Solenoid Driver
Motor Driver
Pause
Music Sensor
Repeat
Play/Program
REW
FF
GND
S801 Power SW.
Reaf SW.
SD701 Sensor
SD702 FF/REW
SD703 REW
SD704 Keep
SD705 Program
Reverse
Normal
Control P.C. Board
Deck Control P.C. Board
Deck Control
Music Sensor/Repeat Control
Pause Reset
Tape Running Direction Display Lamp
* For voltages refer to description on "Repeat Circuit".
Dolby B
Dolby C
Repeat
Return Eject
Loudness
Metal
Reverse
Normal
Clear
Music Sensor
FF
REW
Play/Program
Eject
LD901~909 LD910, 911 LD914, 915 LD970, 971 BG3422K BG5535K
LD912, 913 LD916~920 PY5535K

IC705

1	—
2	—
3	—
4	NORMAL (9.6V) REVERSE (0 V)
5	REW (7.8V) FF, PLAY (0V)
6	NORMAL (0V) REVERSE (6.4V)
7	0V
8	PACK DOWN (6.7V)
9	KEEP (8.1V)
10	LOADING (0V) OTHERS (9.7V)
11	—
12	—
13	—
14	9.8V

IC701

1	FF (8.9V)
2	REW (8.9V)
3	PLAY (9.0V)
4	PROGRAM (5.8V)
5	—
6	—
7	MUSIC SENSOR (5.6V)
8	RETURN EJECT (11.6V)
9	13.0V
10	PAUSE (8.3V)
11	4.6V
12	13.1V
13	NORMAL (0 V) REVERSE (13.1V)
14	4.0V
15	0V
16	SENSOR FF/REW (0V) OTHERS (3.8V)
17	MUTE (8.1V)
18	11.7V
19	KEEP (8.1V)
20	REW (8.1V)
21	FF/REW (8.1V)
22	SENSOR (8.1V)
23	—
24	9.8V

NOTES:

1. All resistance values are in ohms. K = 1,000
2. All capacitance values are in microfarads. $P = \frac{1}{1,000,000}$

Electrical Parts List

Resistors (All resistors are carbon film, ¼W, ±5% unless otherwise noted.)
uF = microfarads, pF = picofarads

Symbol No.	Part No.	Description
Audio P.C. Board		
IC's		
IC201	51T43196F01	M51522L
IC202	51T57565F01	BA715DX
IC205	51T57039F01	NE652 (Dolby)
IC206	51T57039F01	NE652 (Dolby)
IC207	51T52155F01	NJM2041D-D
IC301	51S43471U02	μPC4558C
IC302	51S43471U02	μPC4558C
IC901	51T55444F01	TC9138
IC902	51T43196U01	43196U01 (Touch Switch IC)
IC903	51T40389U01	MC14013BCP
IC905	51T51541F01	BA685
Transistors		
Q201	48S40627U01	2SD636-Q
or	48S40627U04	2SD636-R
or	48S40627U05	2SD636-S
Q202	48S40627U01	2SD636-Q
or	48S40627U04	2SD636-R
or	48S40627U05	2SD636-S
Q203	48S40627U01	2SD636-Q
or	48S40627U04	2SD636-R
or	48S40627U05	2SD636-S
Q204	48S40627U01	2SD636-Q
or	48S40627U04	2SD636-R
or	48S40627U05	2SD636-S
Q301	48S40591U01	2SB641-Q
or	48S40591U04	2SB641-R
Q302	48S40591U01	2SB641-Q
or	48S40591U04	2SB641-R
Q303	48S40627U01	2SD636-Q
or	48S40627U04	2SD636-R
or	48S40627U05	2SD636-S
Q304	48S40627U01	2SD636-Q
or	48S40627U04	2SD636-R
or	48S40627U05	2SD636-S
Q305	48S40627U01	2SD636-Q
or	48S40627U04	2SD636-R
or	48S40627U05	2SD636-S
Q306	48S40627U01	2SD636-Q
or	48S40627U04	2SD636-R
or	48S40627U05	2SD636-S
Q307	48S40627U01	2SD636-Q
or	48S40627U04	2SD636-R
or	48S40627U05	2SD636-S
Q308	48S40627U01	2SD636-Q
or	48S40627U04	2SD636-R
or	48S40627U05	2SD636-S
Q309	48S40627U01	2SD636-Q
or	48S40627U04	2SD636-R
or	48S40627U05	2SD636-S
Q310	48S40627U01	2SD636-Q
or	48S40627U04	2SD636-R
or	48S40627U05	2SD636-S
Q311	48S40627U01	2SD636-Q
or	48S40627U04	2SD636-R
or	48S40627U05	2SD636-S
Q312	48S40627U01	2SD636-Q
or	48S40627U04	2SD636-R
or	48S40627U05	2SD636-S
Q401	48T42182U02	2SD661-S
Q402	48T42182U02	2SD661-S
Q403	48T51878F01	2SC2878-A, B
Q404	48T51878F01	2SC2878-A, B
Q405	48S40627U01	2SD636-Q
or	48S40627U04	2SD636-R
or	48S40627U05	2SD636-S
Q406	48S40627U01	2SD636-Q
or	48S40627U04	2SD636-R
or	48S40627U05	2SD636-S
Q801	48T55875F01	2SD1265-O, P
Q802	48S42455F01	2SD638-R
or	48S42455F02	2SD638-S
Q803	48S40627U01	2SD636-Q
or	48S40627U04	2SD636-R
or	48S40627U05	2SD636-S
Q804	48S40591U01	2SB641-Q
or	48S40591U04	2SB641-R
Q805	48S40627U01	2SD636-Q
or	48S40627U04	2SD636-R
or	48S40627U05	2SD636-S

Symbol No.	Part No.	Description
Q901	48S40627U01	2SD636-Q
or	48S40627U04	2SD636-R
or	48S40627U05	2SD636-S
Q902	48S40627U01	2SD636-Q
or	48S40627U04	2SD636-R
or	48S40627U05	2SD636-S
Q903	48S40591U01	2SB641-Q
or	48S40591U04	2SB641-R
Q904	48S40627U01	2SD636-Q
or	48S40627U04	2SD636-R
or	48S40627U05	2SD636-S
Q906	48S40627U01	2SD636-Q
or	48S40627U04	2SD636-R
or	48S40627U05	2SD636-S
Q907	48S40627U01	2SD636-Q
or	48S40627U04	2SD636-R
or	48S40627U05	2SD636-S
Q908	48S40627U01	2SD636-Q
or	48S40627U04	2SD636-R
or	48S40627U05	2SD636-S
Q909	48S40627U01	2SD636-Q
or	48S40627U04	2SD636-R
or	48S40627U05	2SD636-S
Q910	48S40627U01	2SD636-Q
or	48S40627U04	2SD636-R
or	48S40627U05	2SD636-S
Q911	48S40627U01	2SD636-Q
or	48S40627U04	2SD636-R
or	48S40627U05	2SD636-S
Q912	48S40627U01	2SD636-Q
or	48S40627U04	2SD636-R
or	48S40627U05	2SD636-S
Q913	48S40591U01	2SB641-Q
or	48S40591U04	2SB641-R
Q914	48S40627U01	2SD636-Q
or	48S40627U04	2SD636-R
or	48S40627U05	2SD636-S
Q915	48S40627U01	2SD636-Q
or	48S40627U04	2SD636-R
or	48S40627U05	2SD636-S
Q916	48S40591U01	2SB641-Q
or	48S40591U04	2SB641-R
Q917	48S40627U01	2SD636-Q
or	48S40627U04	2SD636-R
or	48S40627U05	2SD636-S

Symbol No.	Part No.	Description
Q918	48S40627U01	2SD636-Q
or	48S40627U04	2SD636-R
or	48S40627U05	2SD636-S
Q919	48S40627U01	2SD636-Q
or	48S40627U04	2SD636-R
or	48S40627U05	2SD636-S
Diodes		
D801	48T44992F01	DS135D
D802	48T44992F01	DS135D
D805	48T44992F01	DS135D
D806	48T44992F01	DS135D
D903	48S134816	1S1555
D905	48S134816	1S1555
ZD801	48T40059U10	Zener, HZ7A-1L
ZD802	48T40059U15	Zener, HZ7B-3L
ZD803	48T40150U99	Zener, HZ9C-3
ZD901	48T40732F04	Zener, RD3.0E-B2
DA901	48T56923F01	Array, DAN-201
DA902	48T57042F02	Array, DA-203
Coils		
L301	24T57445F01	36mH
L302	24T57445F01	36mH
Z901	91T56354F01	Hybrid, Touch Switch
Capacitors		
C201	21C45322G39	Ceramic, 680 pF
C202	21C45322G39	Ceramic, 680 pF
C203	23S41059P07	Tantalum, 1 uF/35V
C204	23S41059P07	Tantalum, 1 uF/35V
C205	23T43247F17	Electrolytic, 47 uF/6.3V
C206	23T43247F17	Electrolytic, 47 uF/6.3V
C207	8T42629F67	Mylar, 0.01 uF
C208	8T42629F67	Mylar, 0.01 uF
C209	23T43247F08	Electrolytic, 4.7 uF/25V
C210	23T43247F08	Electrolytic, 4.7 uF/25V

Symbol No.	Part No.	Description
C211	23T43247F05	Electrolytic, 1 uF/50V
C212	23T43247F05	Electrolytic, 1 uF/50V
C301	23T43247F19	Electrolytic, 220 uF/6.3V
C302	23T43247F19	Electrolytic, 220 uF/6.3V
C303	8T42629F58	Mylar, 0.0018 uF
C304	8T42629F58	Mylar, 0.0018 uF
C305	8T42629F73	Mylar, 0.033 uF
C306	8T42629F73	Mylar, 0.033 uF
C307	23T43247F09	Electrolytic, 10 uF/16V
C308	23T43247F09	Electrolytic, 10 uF/16V
C309	8T42629F63	Mylar, 0.0047 uF
C310	8T42629F63	Mylar, 0.0047 uF
C311	8T42629F63	Mylar, 0.0047 uF
C312	8T42629F63	Mylar, 0.0047 uF
C313	23T43247F09	Electrolytic, 10 uF/16V
C314	23T43247F09	Electrolytic, 10 uF/16V
C315	8T42629F67	Mylar, 0.01 uF
C316	8T42629F67	Mylar, 0.01 uF
C317	8T42629F75	Mylar, 0.047 uF
C318	8T42629F75	Mylar, 0.047 uF
C319	8T42629F73	Mylar, 0.033 uF
C320	8T42629F73	Mylar, 0.033 uF
C321	8T42629F79	Mylar, 0.1 uF
C322	8T42629F79	Mylar, 0.1 uF
C323	8T42629F81	Mylar, 0.15 uF
C324	8T42629F81	Mylar, 0.15 uF
C325	8T42629F77	Mylar, 0.068 uF
C326	8T42629F77	Mylar, 0.068 uF
C329	8T42629F79	Mylar, 0.1 uF
C330	8T42629F79	Mylar, 0.1 uF
C331	8T42629F73	Mylar, 0.033 uF
C332	8T42629F73	Mylar, 0.033 uF
C333	8T42629F83	Mylar 0.22 uF
C334	8T42629F83	Mylar 0.22 uF
C335	23T43247F09	Electrolytic, 10 uF/16V
C336	23T43247F09	Electrolytic, 10 uF/16V
C409	23T43247F05	Electrolytic, 1 uF/50V
C410	23T43247F05	Electrolytic 1 uF/50V
C411	21C45322G40	Ceramic, 560 pF
C412	21C45322G40	Ceramic, 560 pF
C413	23T43247F05	Electrolytic, 1 uF/50V
C414	23T43247F05	Electrolytic, 1 uF/50V
C415	23T43247F01	Electrolytic, 0.1 uF/50V
C416	23T43247F01	Electrolytic, 0.1 uF/50V
C417	23T43247F11	Electrolytic, 33 uF/10V

Symbol No.	Part No.	Description
C499	23T43247F09	Electrolytic, 10 uF/16V
C501	23T43247F05	Electrolytic, 1 uF/50V
C502	23T43247F05	Electrolytic, 1 uF/50V
C503	23T43247F08	Electrolytic, 4.7 uF/25V
C504	23T43247F08	Electrolytic, 4.7 uF/25V
C505	23T43707U02	Electrolytic, 100 uF/10V
C506	23T43707U02	Electrolytic, 100 uF/10V
C801	23T51232F02	Electrolytic, 1000 uF/16V
C803	23T43707U07	Electrolytic, 330 uF/16V
C805	23T43707U02	Electrolytic, 100 uF/10V
C806	23T43707U04	Electrolytic, 220 uF/10V
C807	23T43707U02	Electrolytic, 100 uF/10V
C808	23T43707U02	Electrolytic, 100 uF/10V
C809	23T43247F17	Electrolytic, 47 uF/6.3V
C810	23T43247F17	Electrolytic, 47 uF/6.3V
C811	23B44780P19	Electrolytic, 220 uF/10V
C812	23B44780P16	Electrolytic, 100 uF/16V
C813	23T43707U02	Electrolytic, 100 uF/10V
C814	23T43707U02	Electrolytic, 100 uF/10V
C901	23T43247F11	Electrolytic, 33 uF/10V
C902	23T43247F09	Electrolytic, 10 uF/16V
C904	23S41059P07	Tantalum, 1 uF/35V
C906	23T43247F10	Electrolytic, 22 uF/16V
C907	23S41059P03	Tantalum, 0.22 uF/35V
C908	23S41059P22	Tantalum, 6.8 uF/16V
C909	23T43247F05	Electrolytic, 1 uF/50V
C910	23T43247F06	Electrolytic, 2.2 uF/50V
C913	23T43247F11	Electrolytic, 33 uF/10V
C914	23T43247F05	Electrolytic, 1 uF/50V
C915	8T42629F69	Mylar, 0.015 uF
C916	23T43247F05	Electrolytic, 1 uF/50V
C917	23T43247F08	Electrolytic, 4.7 uF/25V
C918	23T43247F05	Electrolytic, 1 uF/50V
C920	21C45322G29	Ceramic, 2200 pF
C921	21C45322G29	Ceramic, 2200 pF
C922	8T44979P08	Ceramic, 0.01 uF
C923	21C45322G14	Ceramic, 22 pF
C924	21C45322G14	Ceramic, 22 pF

Symbol No.	Part No.	Description
Resistors (All resistors are carbon film, 1/6W, ±5% unless otherwise noted.)		
R201	6S55065F49	220 ohm
R202	6S55065F49	220 ohm
R203	6S55066F26	330K ohm
R204	6S55066F26	330K ohm
R205	6S55065F85	6.8K ohm
R206	6S55065F85	6.8K ohm
R207	6S55065F81	4.7K ohm
R208	6S55065F81	4.7K ohm
R209	6S55066F14	100K ohm
R210	6S55066F14	100K ohm
R211	6S55065F89	10K ohm
R212	6S55065F89	10K ohm
R215	6S55065F81	4.7K ohm
R217	6S55066F07	51K ohm
R218	6S55066F07	51K ohm
R219	6S55065F65	1K ohm
R220	6S55065F65	1K ohm
R221	6S55065F91	12K ohm
R222	6S55065F91	12K ohm
R301	6S55065F97	22K ohm
R302	6S55065F97	22K ohm
R303	6S55065F97	22K ohm
R304	6S55065F97	22K ohm
R305	6S55065F97	22K ohm
R306	6S55065F97	22K ohm
R307	6S55066F38	1M ohm
R308	6S55066F38	1M ohm
R311	6S55065F81	4.7K ohm
R312	6S55065F81	4.7K ohm
R313	6S55065F65	1K ohm
R314	6S55065F65	1K ohm
R315	6S55065F89	10K ohm
R316	6S55065F89	10K ohm
R317	6S55065F77	3.3K ohm
R318	6S55065F77	3.3K ohm
R319	6S55066F06	47K ohm
R320	6S55066F06	47K ohm
R321	6S55065F91	12K ohm
R322	6S55065F91	12K ohm
R323	6S55066F11	75K ohm
R324	6S55066F11	75K ohm
R325	6S55065F73	2.2K ohm
R326	6S55065F73	2.2K ohm
R327	6S55065F82	5.1K ohm
R328	6S55065F82	5.1K ohm
R329	6S55066F10	68K ohm
R330	6S55066F10	68K ohm
R331	6S55065F89	10K ohm
R332	6S55065F89	10K ohm
R333	6S55066F26	330K ohm
R334	6S55066F26	330K ohm
R335	6S55066F28	390K ohm
R336	6S55066F28	390K ohm
R337	6S55066F12	82K ohm
R338	6S55066F12	82K ohm
R339	6S55066F28	390K ohm
R340	6S55066F28	390K ohm
R341	6S55066F26	330K ohm
R342	6S55066F26	330K ohm
R407	6S55066F22	220K ohm
R408	6S55066F22	220K ohm
R409	6S55065F41	100 ohm
R410	6S55065F41	100 ohm
R411	6S55065F61	680 ohm
R412	6S55065F61	680 ohm
R413	6S55065F77	3.3K ohm
R414	6S55065F77	3.3K ohm
R415	6S55065F81	4.7K ohm
R416	6S55065F81	4.7K ohm
R417	6S55065F81	4.7K ohm
R418	6S55065F81	4.7K ohm
R419	6S55065F73	2.2K ohm
R420	6S55065F73	2.2K ohm
R421	6S55065F89	10K ohm
R422	6S55065F81	4.7K ohm
R423	6S55066F02	33K ohm
R501	6S55066F07	51K ohm
R502	6S55066F07	51K ohm
R503	6S55066F14	100K ohm
R504	6S55066F14	100K ohm
R505	6S55065F71	1.8K ohm
R506	6S55065F71	1.8K ohm
R507	6S55065F97	22K ohm
R508	6S55065F97	22K ohm
R509	6S55065F47	180 ohm

Symbol No.	Part No.	Description
R510	6S55065F47	180 ohm
R511	6S55065F57	470 ohm
R512	6S55065F57	470 ohm
R801	6C44652G48	Metal, 10 ohm 2W
R802	6S55065F65	1K ohm
R803	6S55065F89	10K ohm
R804	6S55065F49	220 ohm
R805	6S55066F07	51K ohm
R806	6S55066F07	51K ohm
R807	6S55065F53	330 ohm
R808	6S55065F65	1K ohm
R809	6S55065F25	22 ohm
R810	6S55065F65	1K ohm
R813	6S55065F97	22K ohm
R814	6S55065F65	1K ohm
R815	6S55065F65	1K ohm
R816	6S55065F65	1K ohm
R901	6S55065F97	22K ohm
R902	6S55065F97	22K ohm
R907	6S55428F89	10K ohm
R908	6S55065F89	10K ohm
R909	6S55065F82	5.1K ohm
R917	6S55066F30	470K ohm
R918	6S55065F89	10K ohm
R919	6S55065F97	22K ohm
R920	6S55066F38	1M ohm
R921	6S55065F89	10K ohm
R922	6S55065F97	22K ohm
R923	6S55065F97	22K ohm
R931	6S55066F02	33K ohm
R932	6S55066F13	91K ohm
R933	6S55066F06	47K ohm
R934	6S55066F06	47K ohm
R935	6S55065F97	22K ohm
R936	6S55065F97	22K ohm
R937	6S55066F08	56K ohm
R938	6S55066F14	100K ohm
R939	6S55065F96	20K ohm
R940	6S55065F89	10K ohm
R941	6S55065F89	10K ohm
R959	6S55065F53	330 ohm
R960	6S55065F53	330 ohm
R963	6S55065F61	680 ohm
R964	6S55065F61	680 ohm
R970	6S55065F61	680 ohm

Symbol No.	Part No.	Description
R971	6S55065F61	680 ohm
R972	6S55065F91	12K ohm
R973	6S55065F97	22K ohm
R974	6S55065F57	470 ohm
R975	6S55066F02	33K ohm
R976	6S55065F91	12K ohm
R977	6S55066F14	100K ohm
R978	6S55066F14	100K ohm
R979	6S55065F82	5.1K ohm
R980	6S55065F82	5.1K ohm
R981	6S55066F14	100K ohm
R982	6S55065F89	10K ohm
R983	6S55066F22	220K ohm
R984	6S55065F41	100 ohm
R985	6S55066F14	100K ohm
R986	6S55065F97	22K ohm
R987	6S55065F49	220 ohm
R988	6S55065F65	1K ohm
R989	6S55066F14	100K ohm
R990	6S55065F89	10K ohm
R991	6S55065F83	5.6K ohm
R992	6S55066F06	47K ohm
R993	6S55065F97	22K ohm
R994	6S55066F14	100K ohm
R995	6S55065F71	1.8K ohm
R996	6S55065F89	10K ohm
R997	6S55065F81	4.7K ohm
R998	6S55065F65	1K ohm
R999	6S55066F30	470K ohm
VR201	18T42748F13	Variable 10K ohm
VR202	18T42748F13	Variable 10K ohm
VR403 VR404	18T55438F01	Rotary Volume (BALANCE VOLUME)
VR901	18T56963F05	Variable 47K ohm

Control P.C. Board

IC's

Symbol No.	Part No.	Description
IC701	51T55987F01	A55987
IC703	51T55547F01	BA634
IC704	51T52157F01	MC14081
IC705	51T57897F01	MC14077BCP

Symbol No.	Part No.	Description
Transistors		
Q701	48S40627U01	2SD636-Q
Q702	48S40627U01	2SD636-Q
Q703	48S40627U01	2SD636-Q
Q704	48S40627U01	2SD636-Q
Q705	48S40627U01	2SD636-Q
Q706	48S40627U01	2SD636-Q
Q714	48T58321F01	Digital, DTC124A
Q715	48T58321F01	Digital, DTC124A
Diodes		
D701	48S134816	1S1555
D702	48S134816	1S1555
D708	48S134816	1S1555
D709	48S134816	1S1555
D710	48S134816	1S1555
D713	48S134816	1S1555
D714	48S134816	1S1555
D715	48S134816	1S1555
D717	48S134816	1S1555
D719	48S134816	1S1555
D720	48S134816	1S1555
DA702	48T56923F01	Array, DAN-201
DA703	48T57042F01	Array, DAP-201
DA704	48T57042F01	Array, DAP-201
DA705	48T56923F01	Array, DAN-201
DA706	48T56923F01	Array, DAN-201
ZD702	48T40059U26	Zener, HZ9C-2L
Capacitors		
C701	23T43247F06	Electrolytic, 2.2 uF/50V
C702	23T43247F05	Electrolytic, 1 uF/50V
C703	23T43247F05	Electrolytic, 1 uF/50V
C704	23T43247F06	Electrolytic, 2.2 uF/50V
C705	23T43247F09	Electrolytic, 10 uF/16V

Symbol No.	Part No.	Description
C706	23T43247F09	Electrolytic, 10 uF/16V
C707	23T43247F09	Electrolytic, 10 uF/16V
C708	23T43247F05	Electrolytic, 1 uF/50V
C712	23T43247F10	Electrolytic, 22 uF/16V
C713	23T43247F10	Electrolytic, 22 uF/16V
C714	21C45322G22	Ceramic, 100 pF
C716	23T43247F09	Electrolytic, 10 uF/16V
C717	23T43247F05	Electrolytic, 1 uF/50V
Resistors (All resistors are carbon film, 1/6W, ±5% unless otherwise noted.)		
R701	6S55065F89	10K ohm
R702	6S55065F89	10K ohm
R703	6S55065F89	10K ohm
R704	6S55065F89	10K ohm
R705	6S55066F14	100K ohm
R706	6S55065F69	1.5K ohm
R707	6S55065F89	10K ohm
R708	6S55065F89	10K ohm
R709	6S55065F89	10K ohm
R710	6S57258F89	10K ohm
R711	6S55066F14	100K ohm
R712	6S55065F89	10K ohm
R713	6S57258F89	10K ohm
R714	6S55066F14	100K ohm
R715	6S55065F89	10K ohm
R716	6S57258F89	10K ohm
R717	6S55066F14	100K ohm
R718	6S55065F89	10K ohm
R719	6S55065F89	10K ohm
R721	6S55066F14	100K ohm
R722	6S55065F89	10K ohm
R723	6S55428F41	100 ohm
R725	6S55066F14	100K ohm
R733	6S55065F97	22K ohm
R734	6S55428F65	1K ohm
R735	6S57259F14	100K ohm
R738	6S57258F89	10K ohm
R739	6S57258F89	10K ohm
R740	6S55066F14	100K ohm
R741	6S55065F89	10K ohm

Symbol No.	Part No.	Description
R745	6S55066F06	47K ohm
R746	6S57259F22	220K ohm
R747	6S55065F89	10K ohm
R749	6S57258F89	10K ohm
R750	6S57258F92	13K ohm
R751	6S57258F91	12K ohm
R752	6S57259F14	100K ohm
R753	6S57259F14	100K ohm
R754	6S57258F81	4.7K ohm
R755	6S57258F09	4.7 ohm
Deck Control P.C. Board		
IC		
IC706	51T52421F01	M54838L
Transistors		
Q709	48T41345F03	2SA683-R
Q710	48T57613F01	2SD947
Q711	48T57613F01	2SD947
Q712	48T57613F01	2SD947
Q713	48T57613F01	2SD947
Diodes		
D703	48C40235G02	10E2
D704	48C40235G02	10E2
D705	48C40235G02	10E2
D706	48C40235G02	10E2
D707	48C40235G02	10E2
ZD701	48T40150U68	Zener, HZ12C-2

Symbol No.	Part No.	Description
Capacitors		
C709	23S41059P03	Tantalum, 0.22 uF/35V
C710	8T42629F73	Mylar, 0.033 uF
C711	8T42629F73	Mylar, 0.033 uF
C715	23T43247F09	Electrolytic, 10 uF/16V
Resistors (All resistors are carbon film, 1/6W, ±5% unless otherwise noted.)		
R724	6S41801P32	1K ohm ¼W
R726	6S55065F73	2.2K ohm
R727	6S55065F73	2.2K ohm
R728	6S55065F73	2.2K ohm
R729	6S55065F73	2.2K ohm
R730	6S55065F41	100 ohm
R731	6S55065F41	100 ohm
R811	6S41801P04	4.7 ohm ¼W
R812	6S44593P41	100 ohm ¼W
Treble/Bass P.C. Board		
Coil & Diodes		
L801	25T52199F01	Choke Coil
D718	48C40235G02	10E2
D807	48C40235G02	10E2
Capacitors (u = μ)		
C401	8T42629F66	Mylar, 0.0082 uF
C402	8T42629F66	Mylar, 0.0082 uF
C403	8T42629F75	Mylar, 0.047 uF
C404	8T42629F75	Mylar, 0.047 uF
C405	8T42629F74	Mylar, 0.039 uF
C406	8T42629F74	Mylar, 0.039 uF
C407	23T43247F02	Electrolytic, 0.22 uF/50V
C408	23T43247F02	Electrolytic, 0.22 uF/50V

Symbol No.	Part No.	Description
Resistors (All resistors are carbon film, 1/6W, ±5% unless otherwise noted.)		
R401	6S55065F81	4.7K ohm
R402	6S55065F81	4.7K ohm
R403	6S55065F65	1K ohm
R404	6S55065F65	1K ohm
R405	6S55065F63	820 ohm
R406	6S55065F63	820 ohm
VR401	18T56007F01	Variable (TREBLE)
VR402	18T56007F01	Variable (BASS)

Switch/LED P.C. Board

Diodes		
LD901	48T57941F01	LED, BG3422K (Green)
LD902	48T57941F01	LED, BG3422K (Green)
LD903	48T57941F01	LED, BG3422K (Green)
LD904	48T57941F01	LED, BG3422K (Green)
LD905	48T57941F01	LED, BG3422K (Green)
LD906	48T57941F01	LED, BG3422K (Green)
LD907	48T57941F01	LED, BG3422K (Green)
LD908	48T57941F01	LED, BG3422K (Green)
LD909	48T57941F01	LED, BG3422K (Green)
LD910	48T42449F02	LED, BG5535K (Green)
LD911	48T42449F02	LED, BG5535K (Green)
LD912	48T42449F01	LED, PY5535K (Yellow)
LD913	48T42449F01	LED, PY5535K (Yellow)
LD914	48T42449F02	LED, BG5535K (Green)
LD915	48T42449F02	LED, BG5535K (Green)
LD916	48T42449F01	LED, PY5535K (Yellow)
LD917	48T42449F01	LED, PY5535K (Yellow)
LD918	48T42449F01	LED, PY5535K (Yellow)
LD919	48T42449F01	LED, PY5535K (Yellow)
LD920	48T42449F01	LED, PY5535K (Yellow)
LD923	48T57589F01	LED, 7SEG LA301ML 660 1280
LD970	48T42449F02	LED, BG5535K (Green)
LD971	48T42449F02	LED, BG5535K (Green)

Symbol No.	Part No.	Description
Lamps		
PL901	65T42192F01	Pilot
PL902	65T42192F01	Pilot
PL903	65T42192F01	Pilot
Resistors (All resistors are carbon film, 1/8W, ±5% unless otherwise noted.)		
R924	6S53330F43	Chip, 390 ohm
R925	6S53330F43	Chip, 390 ohm
R926	6S53330F43	Chip, 390 ohm
R927	6S53330F43	Chip, 390 ohm
R928	6S53330F43	Chip, 390 ohm
R929	6S53330F43	Chip, 390 ohm
R930	6S53330F43	Chip, 390 ohm
R950	6S53330F40	Chip, 300 ohm
R951	6S53330F40	Chip, 300 ohm
R952	6S53330F40	Chip, 300 ohm
R953	6S53330F40	Chip, 300 ohm
R954	6S53330F40	Chip, 300 ohm
R955	6S53330F40	Chip, 300 ohm
R956	6S53330F40	Chip, 300 ohm
R957	6S53330F40	Chip, 300 ohm
R958	6S53330F40	Chip, 300 ohm
R961	6S53330F49	Chip, 680 ohm
R962	6S53330F49	Chip, 680 ohm
R965	6S53330F40	Chip, 300 ohm
R966	6S53330F40	Chip, 300 ohm
R967	6S53330F40	Chip, 300 ohm
R968	6S53330F40	Chip, 300 ohm
R969	6S53330F40	Chip, 300 ohm
Switches		
S901 ∿ S912		Included in symbol Nos. 2 and 21 on "Cabinet Assembly Parts List"

Symbol No.	Part No.	Description
Miscellaneous Parts		
C815	23B44780P03	Cap., Electrolytic 220 uF/16V
C816 C817	8T56919F01	Ass'y, Feed Through Capacitor
C820	23T51232F02	Cap., Electrolytic 1000 uF/16V
E1	1T56921F01	Pre-Out (DIN) Connector
E2	1T55477F01	Remote Control (DIN) Connector
E3	1T47811F03	Relay Box Control Power Lead
E4	1T58212F01	ACC Power Lead
F1	65A40348G01	Fuse, 5A
HD701	88T55320F01	Head, Playback
L802	25T43198U02	Filter, Choke
M701	1V59300F75	Assembly, Motor
S701	40T50901F01	Switch, Reed
S702	40T50901F01	Switch, Reed
S703	40T43066F01	Switch, Slide (Norm/Reverse)
S801	40T45610F01	Switch, Micro
S802	40T43662U01	Switch, Leaf
SD701	1T45997F01	Assembly, Sensor Solenoid
SD702	1T52192F01	Assembly, FF/REW Solenoid
SD703	1T52192F02	Assembly, REW Solenoid
SD704	1T43641F01	Assembly, Keep Solenoid
SD705	1T45982F01	Assembly, Program Solenoid

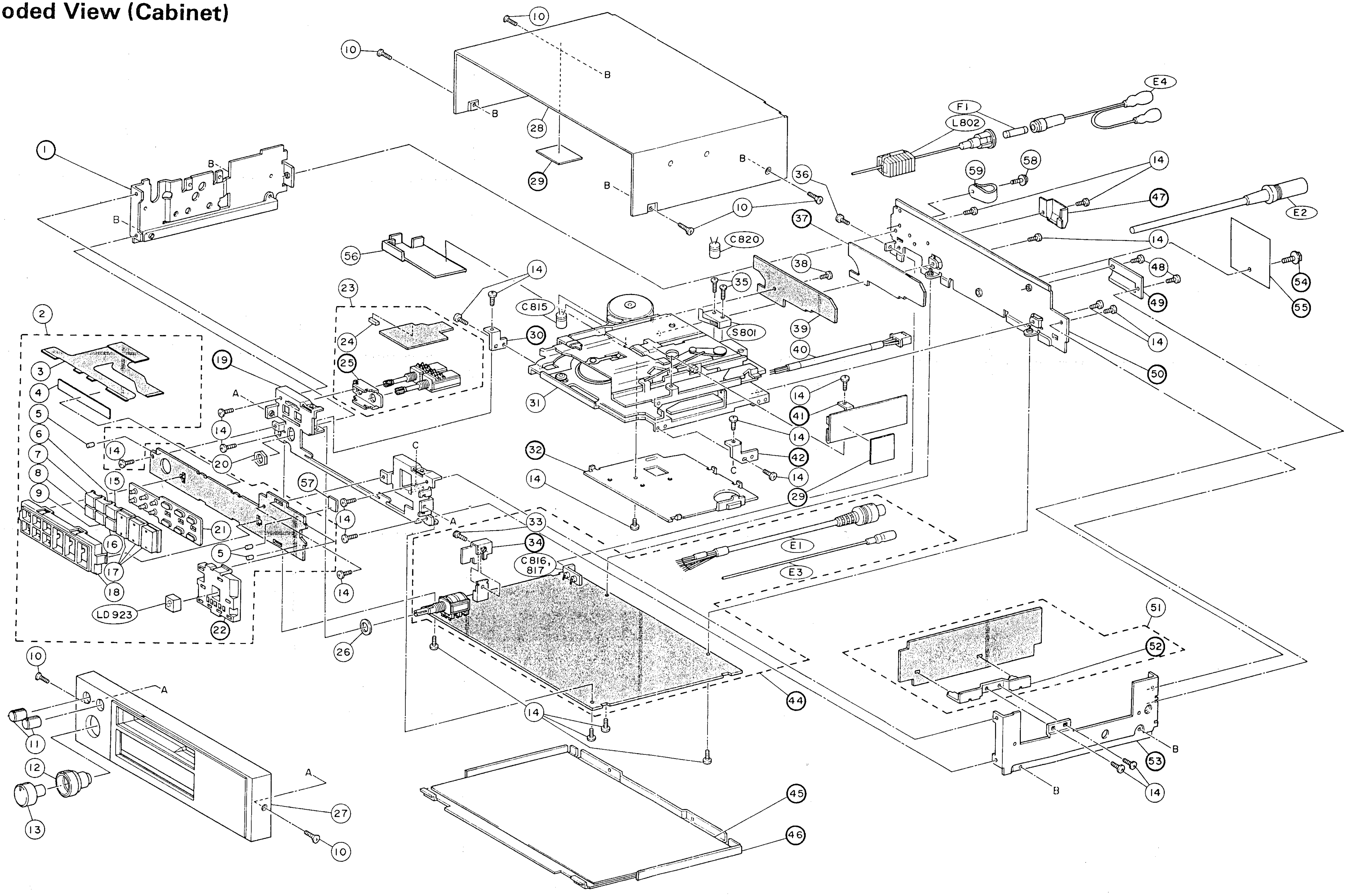
Symbol No.	Part No.	Description

Cabinet Assembly Parts List

Symbol No.	Index	Part No.	Description
1	1-A	※	Chassis, Left Side
2	2-A	1V58300F88	Assembly, Switch/LED P.C. Board
3	3-A	84T55436F01	P.C. Board, Flexible Switch
4	3-A	14S53017F97	Fiber, Insulator
5		43A45130F05	Bushing, Lamp
6	3-A	36B55474F02	Button, Push (Metal)
7	3-A	36B55474F01	Button, Push (Dolby B)
8	3-A	36B55474F04	Button, Push (Dolby C)
9	3-A	36B55474F05	Button, Push (Repeat)
10		3S44205G45	Screw, Countersink (M2.6 x 5)
11	5-A	36B55464F01	Knob, Treble/Bass
12	5-A	36B55461F01	Knob, Balance
13	5-A	36B55460F01	Knob, Volume
14		3S44205G30	Screw, Pan (M2.6 x 4)
15	3-A	36B55474F03	Button, Push (Loudness)
16	4-A	36B55474F06	Button, Push (Return Eject)
17	4-A	36B55471F01	Button, Push (Music Sensor, Clear, FF, REW, Eject, Play/Program)
18	4-A	7B55476F01	Support, Knob
19	3-B	※	Chassis, Front
20	3-B	2S40000G20	Nut, Hex. (M9)
21	3-B	40B55453F01	Rubber, Switch
22	4-B	※	Spacer, LED
23	2-C	1V58300F87	P.C. Board, Treble/Bass
24	2-C	75A50578F03	Pad, Cushion
25	3-C	※	Bracket, Volume
26	4-C	4A43020G05	Washer, Flat (M9.2)
27	5-C	13C55458F01	Assembly, Nosepiece
28	1-D	15C55462F01	Cover, Top
29		※	Fiber, Insulator
30	2-D	※	Bracket, Deck Mounting (L)
31	3-D	81D52293F02	Cassette, Deck (GV75E01S)
32	3-D	※	Cover, Deck
33	3-D	3C40014G10	Screw, W/Washer (M3 x 8)
34	4-D	※	Heat Sink
35	2-E	3S43997P49	Screw, Bind (M2.3 x 8)
36	1-E	3C40014G12	Screw, W/Washer(M2.6 x 4)
37	2-E	※	Fiber, Insulator
38	2-E	3S44205G42	Screw, Pan (M2.6 x 4)
39	2-E	1V58300F91	P.C. Board, Deck Control
40	2-E	1T56920F02	Assembly, Connector (3P)
41	3-E	※	Plate, Shield
42	3-E	※	Bracket, Deck Mounting (R)
44	4-E	※	P.C. Board, Audio
45	5-E	※	Fiber (A), Insulator
46	5-E	※	Cover, Bottom
47	2-G	※	Clamp, Cord
48	2-G	3S40012G01	Screw, Tapping (M3 x 5)
49	2-G	※	Clamp, Cord
50	3-G	※	Chassis, Rear
51	4-G	1V58300F92	P.C. Board, Control
52	4-G	※	Bracket, P.C. Board
53	5-G	※	Chassis, Right Side
54	2-H	※	Screw, W/Washer (M5 x 10)
55	2-H	※	Label, Mounting Screw
56	2-C	7A58402F01	Plate, Motor Shield
57	3-C	75A40620U07	Pad, Cushion
58	1-G	3C42723U01	Screw, Cap (M3 x 6)
59	1-F	42B41424G03	Clamp, Cord

NOTE: ※ The parts without part numbers are not supplied.

Exploded View (Cabinet)



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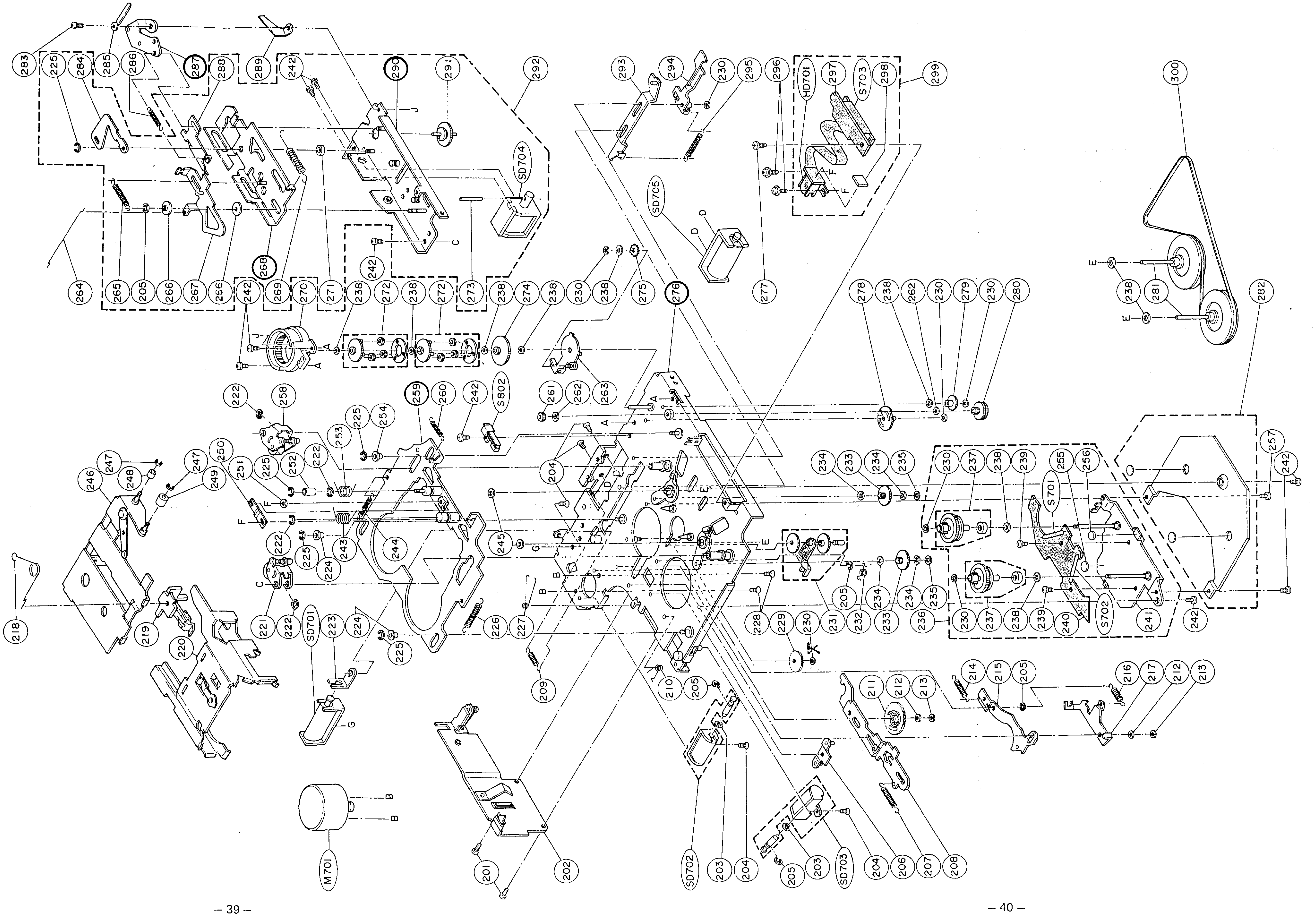
56
38
35
48
49
54
55
23
14
C815
39
S801
2
30
24
40
50
25
3
19
A
31
14
4
41
14
5
14
14
42
6
20
C
7
32
14
8
15
57
C
14
29
9
21
33
A
14
16
5
34
E1
17
C816, 817
14
18
E3
LD923
22
51
10
52
26
44
A
11
14
B
12
53
A
B
27
14
13
45
10
46

Exploded View (Cassette Deck)


283
225
284
285
286
287
288
289
242
290
291
292
293
294
230
295
296
HD701
297
S703
298
299
300
SD704
SD705
D
D
F
F
J
C
264
265
205
266
267
266
268
242
269
270
271
238
242
272
238
272
273
238
274
238
230
238
275
276
277
278
238
262
230
279
230
280
E
238
281
E
282
A
J
A
222
258
259
260
242
S802
261
262
263
257
242
246
247
248
247
249
250
251
225
252
222
253
225
254
204
234
233
234
235
230
237
238
239
S701
255
256
F
222
225
224
243
244
245
G
E
B
B
218
219
220
221
222
SD701
223
224
225
226
227
228
229
230
231
205
232
234
233
234
235
236
230
237
238
239
240
S702
241
242
209
210
205
211
212
213
214
215
205
216
217
212
213
G
B
B
M701
201
202
SD702
203
204
205
203
SD703
204
206
207
208

Cassette Deck Assembly Parts List

Symbol No.	Index	Part No.	Description
201	5-D	3S44205G30	Screw, Pan (M2.6 x 4)
202	5-D	1A52296F01	Assembly, Guide Rivet
203		4S40075G11	Washer, Polyslider (M3.1)
204		3S40011G81	Screw, Countersink (M2 x 4)
205		4C42091G05	Washer, "E" (M2)
206	5-F	1A47159F01	Assembly, R/F Link Rivet
207	5-F	41C45984F04	Spring
208	5-F	1A47158F01	Assembly, R/F Lever Rivet
209	5-D	41C45984F06	Spring
210	5-E	41A52517F01	Spring, R/F
211	5-F	44B45153F01	Gear, R/F
212		4S40075G03	Washer, Polyslider (M1.7)
213		4A41345P07	Washer, Lock (M1.3)
214	4-F	41C45984F08	Spring
215	4-G	1A52298F01	Assembly, R/F Act Rivet
216	4-G	41C5984F07	Spring
217	4-H	45A52185F01	Lever, Trigger
218	4-A	41A41590F01	Spring, Turn
219	4-B	45B52190F01	Guide, Cassette
220	4-B	1A41658F01	Assembly, Cassette Holder
221	4-B	1T51011F01	Assembly, Pinch Roller
222		4C42091G04	Ring, "E" (M3)
223	4-C	45A45618F01	Lever, Mute Solenoid
224		49A41005F01	Roller, Head Base
225		4C42091G06	Ring, "E" (M1.5)
226	4-D	41B41559F05	Spring
227	4-D	41A43244F01	Spring, B.T.
228	4-E	3A42931F01	Screw, Countersink (M2.6 x 3)
229	4-E	44A45154F01	Gear, R/F Idler
230		4A41345P02	Washer, Lock (M1.7)
231	4-F	1C45155F01	Assembly, R/F Idler
232	4-F	41A42613F01	Spring, R/F Idler
233		44A45853F01	Gear, Take-up
234		4S40075G02	Washer, Polyslider (M1.7)
235		4A41345P01	Washer, Lock (M1.2)
236	4-F	1V53700F47	Assembly, Reel Bracket
237		1V41500F38	Assembly, Reel Magnet
238		4S40075G06	Washer, Polyslider (M2.1)
239		3S40019G71	Screw, F-Lock (M2.6 x 3)
240	4-G	84B52191F01	P.C. Board, Reed Switch

Symbol No.	Index	Part No.	Description
241	4-G	1A47156F01	Assembly, Reel Shaft Bracket
242		3C40014G12	Screw, W/Washer (M2.6 x 4)
243	4-C	41A41453F02	Spring, Pinch Roller
244	4-C	41B41559F04	Spring
245	4-D	43A44303P03	Washer, Oil Shield (M1.9)
246	3-A	1A45981F01	Assembly, Rivet Plate Base
247		4C42091G12	Ring "E" (M1.2)
248	3-B	43A41072F02	Spacer
249	3-B	43A41072F03	Spacer
250	3-B	41A45638F01	Spring, Head Adjust.
251	3-B	4S40070G56	Washer, Flat (M2.1)
252	3-C	43A41079F01	Spacer
253	3-C	41A41453F01	Spring, Pinch Roller
254	3-C	49A43395F01	Roller, Head Base
255	3-G	43A41006F02	Spacer, Polyslider
256	3-G	43A41006F03	Spacer, Polyslider
257	3-H	3C40014G06	Screw, W/Washer (M2.6 x 5)
258	3-B	1T51012F01	Assembly, Pinch Roller
259	3-C	※	Assembly, Rivet Head Base
260	3-C	41C45984F09	Spring
261	3-D	44A41349F01	Gear, Pulley
262		4S40075F09	Washer, Polyslider (M2.6)
263	3-D	1A50669F01	Assembly, Rivet Lever Idler Gear
264	2-A	45A41392F01	Link, Connection
265	2-A	41B41559F12	Spring
266		43A42872F01	Spacer
267	2-B	45B41068F01	Lever, Sub
268	2-B	※	Lever, Eject
269	2-B	41B41559F13	Spring
270	2-C	44B41260F01	Gear, Fixed
271	2-C	43A41072F04	Spacer
272		1V41500F30	Assembly, Panet Gear
273	2-D	22B40232G06	Spring, Pin
274	2-D	44A41354F01	Gear, Guide
275	2-E	44A41348F01	Gear, Eject Idler
276	2-E	※	Assembly, Rivet Chassis
277	2-E	3S43997P62	Screw, Round (M2.6 x 3)
278	2-F	44A41352F01	Gear, Change
279	2-F	44A41350F01	Gear, Reverse Idler
280	2-G	44A41351F01	Gear, Pulley Wheel

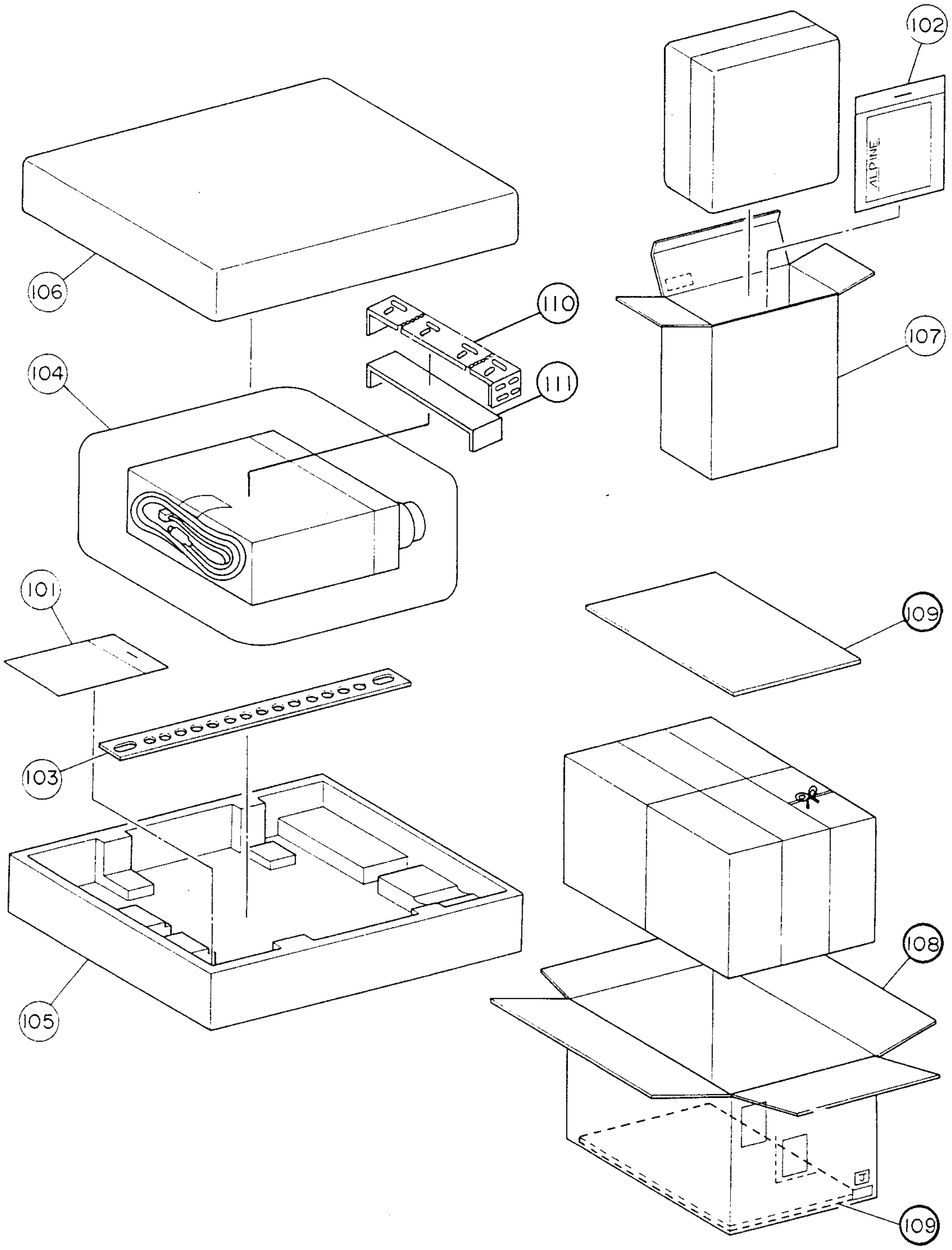
NOTE: ※ The parts without part numbers are not supplied.

Symbol No.	Index	Part No.	Description
281	2-H	1T42014F01	Assembly, Flywheel
282	2-H	1V41500F39	Assembly, Flywheel Bracket
283	1-A	3S56479F01	Screw, W/Washer (M2.6 x 10)
284	1-A	45A41042F01	Lever, Eject Lock
285	1-A	29A737272	Lug, Wrap Around
286	1-B	41B41559F03	Spring
287	1-B	※	Plate, Pinion
288	1-B	64A45857F01	Plate, Head Lock
289	1-B	41A41390F01	Spring, Solenoid
290	1-C	※	Assembly, Lever Frame Rivet
291	1-C	1T45861F01	Assembly, Eject Gear
292	1-D	1V45700F66	Assembly, Eject Lever
293	1-D	1A41661F01	Assembly, Release Lever
294	1-E	45C45545F01	Lever, Reverse
295	1-E	41C45984F01	Spring
296	1-E	3S40019G03	Screw, F-Lock (M2 x 4)
297	1-F	84T51613F01	P.C. Board, Head & Switch
298	1-F	75B44632G13	Pad, Cushion
299	1-F	1V56600F55	Assembly, Head & Switch
300	1-H	42A40969F01	Belt

Symbol No.	Index	Part No.	Description

NOTE: ※ The parts without part numbers are not supplied.

Packing Method View


102
ALPINE
106
110
107
104
111
101
109
103
105
108
109

Packing Assembly Parts List

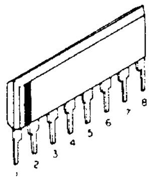
Symbol No.	Part No.	Description
101	1V61100F65	Assembly, Installation Kit
101-1	3S40012G66	Screw, Tapping (M5 x 20)
101-2	※	Sack, Polyethylene
101-3	3B44963F01	Bolt, Hex. (M4 x 8)
101-4	1T42899F02	Assembly, Ground Lead
101-5	65A40348G01	Fuse (5A)
101-6	3B44963F02	Bolt, Hex. W/Washer (M5 x 20)
101-7	2S40000G33	Nut, Hex. (M5)
101-8	3S40012G45	Screw, Tapping (M5 x 10)
102	68P58585F51	Owner's Manual
103	7B44934F01	Strap, Mounting
104	56B40990T22	Sack, Polyethylene
105	56D50255F01	Tray, Packing
106	56D50255F02	Tray, Packing
107	56B47663F14	Carton, Packing (Individual)
108	※	Carton, Packing (Master)
109	※	Pad, Cusion
110	7B52108F01	Bracket, U Mounting
111	56A52180F01	Pad, Sheet
Labels		
	54B42124G01	Serial No. (Individual Carton)
	※	Serial No. (Master Carton)
	※	Date Code (Master Carton)
	54B55463F01	Composite (Bottom Cover)
	54A50889F02	Music Sensor (Bottom Cover)
	54A58575F01	Fabrique (Bottom Cover)
	54A58662F01	Individual (Individual Carton)
	※	Master (Master Carton)

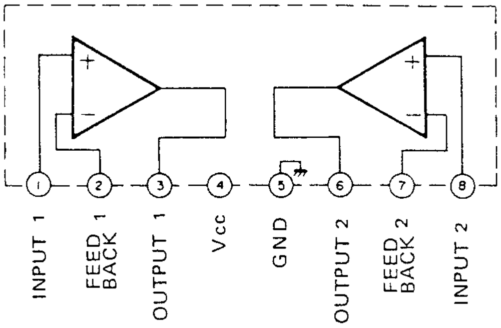
Symbol No.	Part No.	Description

NOTE: ※ The parts without part numbers are not supplied.

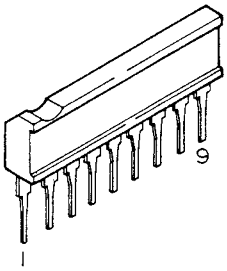
Semi-Conductor Lead Identifications

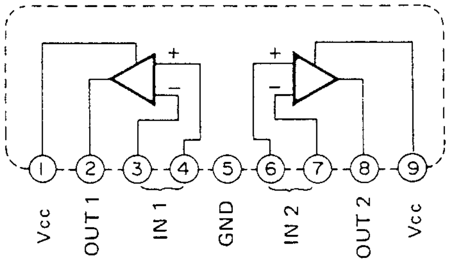
M51522L: IC201



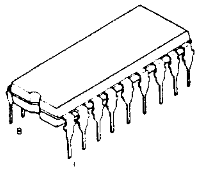

+
−
+
−
1
2
3
4
5
6
7
8
INPUT 1
FEED BACK 1
OUTPUT 1
Vcc
GND
OUTPUT 2
FEED BACK 2
INPUT 2

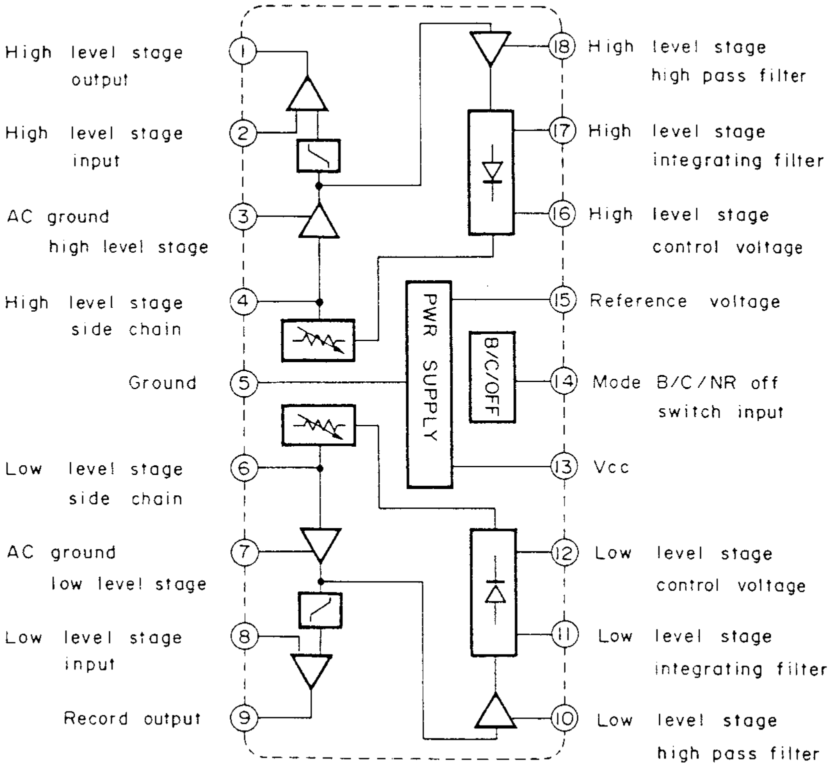
BA715DX: IC202



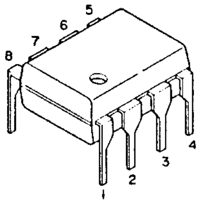

+
−
+
−
1
2
3
4
5
6
7
8
9
Vcc
OUT 1
IN 1
GND
IN 2
OUT 2
Vcc

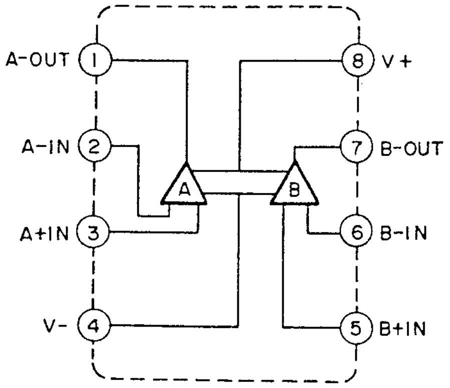
NE652: IC205, 206



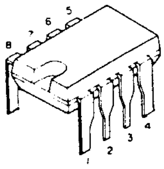

High level stage output
High level stage input
AC ground high level stage
High level stage side chain
Ground
Low level stage side chain
AC ground low level stage
Low level stage input
Record output
1
2
3
4
5
6
7
8
9
18
17
16
15
14
13
12
11
10
PWR SUPPLY
B/C/OFF
High level stage high pass filter
High level stage integrating filter
High level stage control voltage
Reference voltage
Mode B/C/NR off switch input
Vcc
Low level stage control voltage
Low level stage integrating filter
Low level stage high pass filter

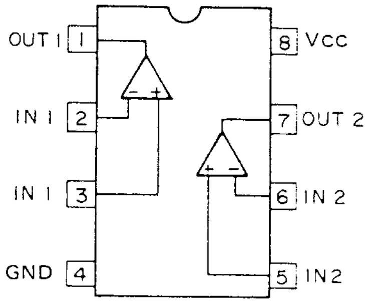
NJM2041D-D: IC207



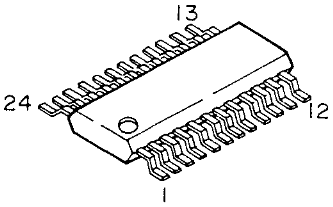

A-OUT
1
A-IN
2
A+IN
3
V-
4
8
V+
7
B-OUT
6
B-IN
5
B+IN
A
B

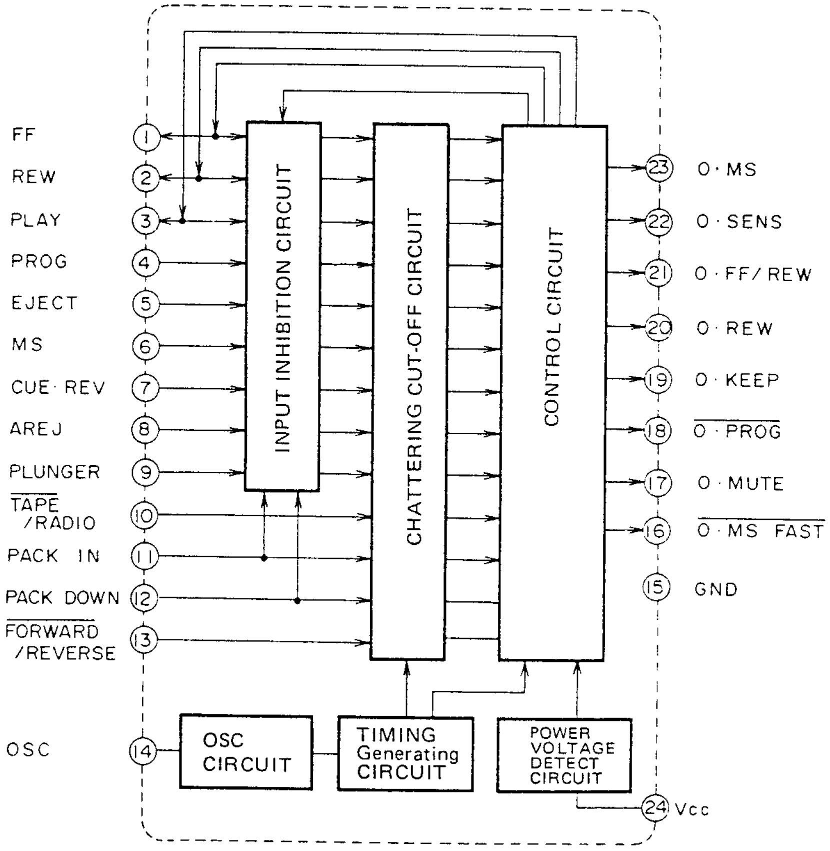
***µ*PC4558C: IC301, 302**



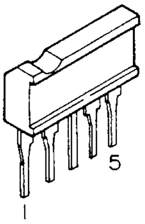

OUT 1
1
IN 1
2
IN 1
3
GND
4
8
Vcc
7
OUT 2
6
IN 2
5
IN2
-
+
+
-

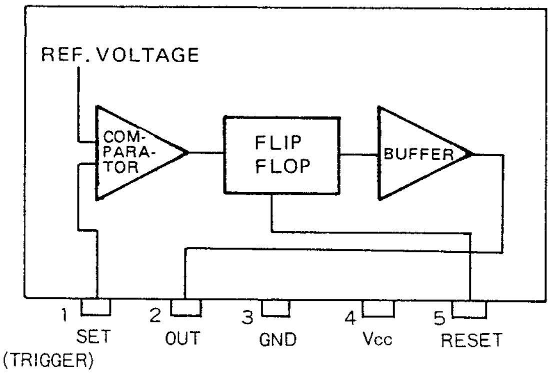
A55987: IC701



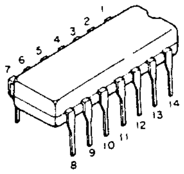

FF
1
REW
2
PLAY
3
PROG
4
EJECT
5
MS
6
CUE·REV
7
AREJ
8
PLUNGER
9
TAPE/RADIO
10
PACK IN
11
PACK DOWN
12
FORWARD/REVERSE
13
OSC
14
INPUT INHIBITION CIRCUIT
CHATTERING CUT-OFF CIRCUIT
CONTROL CIRCUIT
OSC CIRCUIT
TIMING Generating CIRCUIT
POWER VOLTAGE DETECT CIRCUIT
23
O·MS
22
O·SENS
21
O·FF/REW
20
O·REW
19
O·KEEP
18
O·PROG
17
O·MUTE
16
O·MS FAST
15
GND
24
Vcc

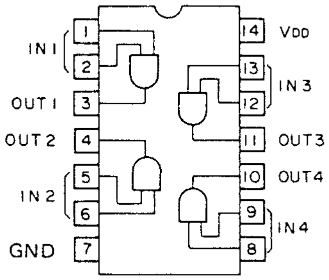
BA634: IC703



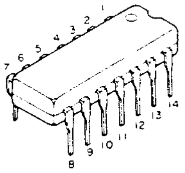

REF. VOLTAGE
COM-
PARA-
TOR
FLIP
FLOP
BUFFER
1
SET
(TRIGGER)
2
OUT
3
GND
4
Vcc
5
RESET

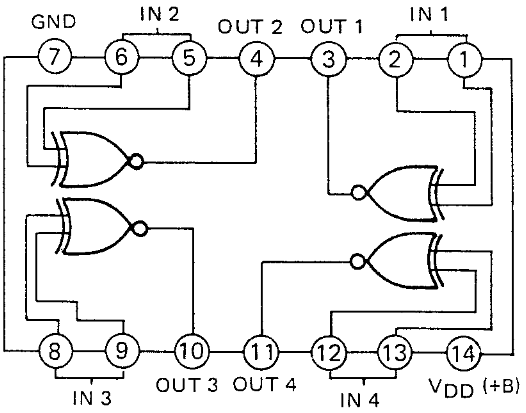
MC14081: IC704


1
2
3
4
5
6
7
8
9
10
11
12
13
14

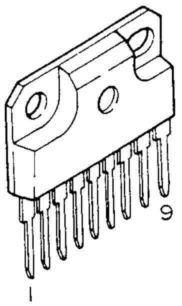

IN 1
OUT 1
OUT 2
IN 2
GND
1
2
3
4
5
6
7
14
13
12
11
10
9
8
VDD
IN 3
OUT3
OUT4
IN4

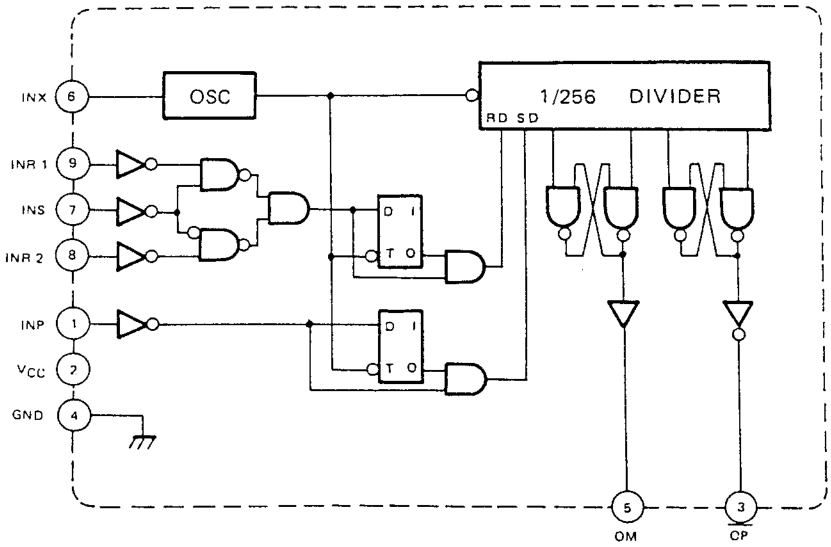
MC14077BCP: IC705


1
2
3
4
5
6
7
8
9
10
11
12
13
14

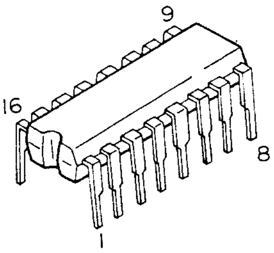

GND
IN 2
OUT 2
OUT 1
IN 1
7
6
5
4
3
2
1
8
9
10
11
12
13
14
IN 3
OUT 3
OUT 4
IN 4
VDD (+B)

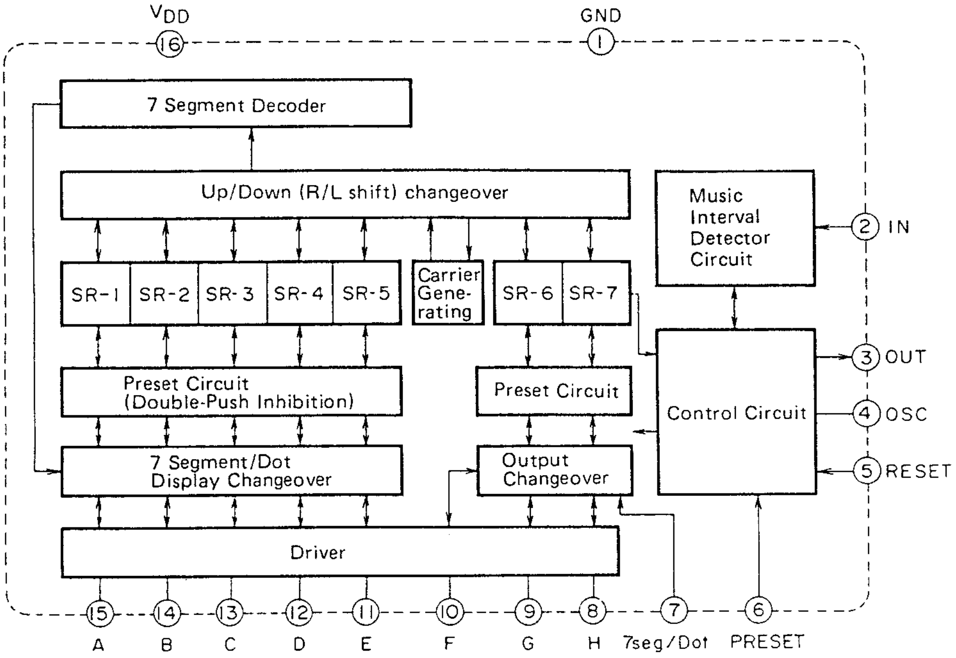
M54838L: IC706



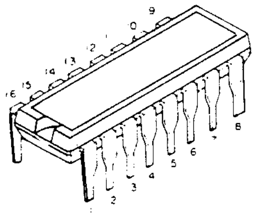

INX
6
OSC
1/256 DIVIDER
RD SD
INR 1
9
INS
7
INR 2
8
D I
T O
INP
1
D I
T O
VCC
2
GND
4
5
OM
3
OP

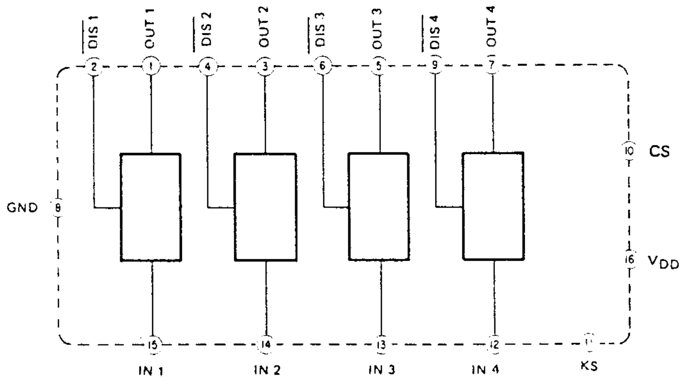
TC9138: IC901



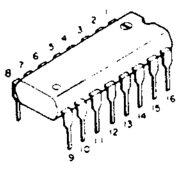

VDD
GND
16
1
7 Segment Decoder
Up/Down (R/L shift) changeover
Music Interval Detector Circuit
2 IN
SR-1
SR-2
SR-3
SR-4
SR-5
Carrier Gene-rating
SR-6
SR-7
3 OUT
Preset Circuit (Double-Push Inhibition)
Preset Circuit
Control Circuit
4 OSC
7 Segment/Dot Display Changeover
Output Changeover
5 RESET
Driver
15 A
14 B
13 C
12 D
11 E
10 F
9 G
8 H
7 7seg/Dot
6 PRESET

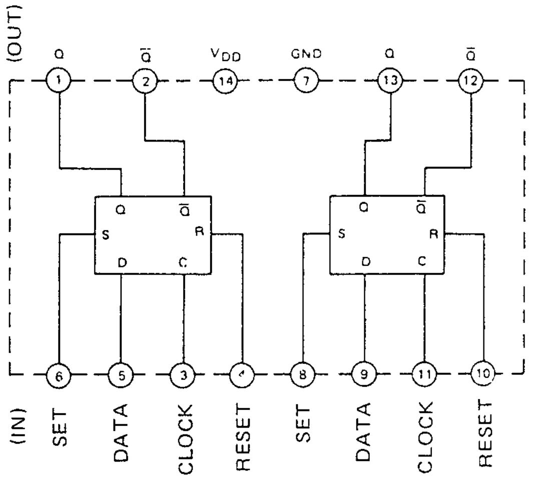
43196U01: IC902



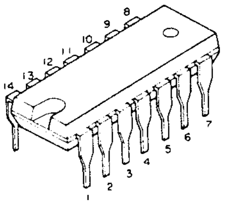

$\overline{\text{DIS 1}}$
OUT 1
$\overline{\text{DIS 2}}$
OUT 2
$\overline{\text{DIS 3}}$
OUT 3
$\overline{\text{DIS 4}}$
OUT 4
2
1
4
3
6
5
9
7
CS
10
GND
8
VDD
16
15
14
13
12
11
IN 1
IN 2
IN 3
IN 4
KS

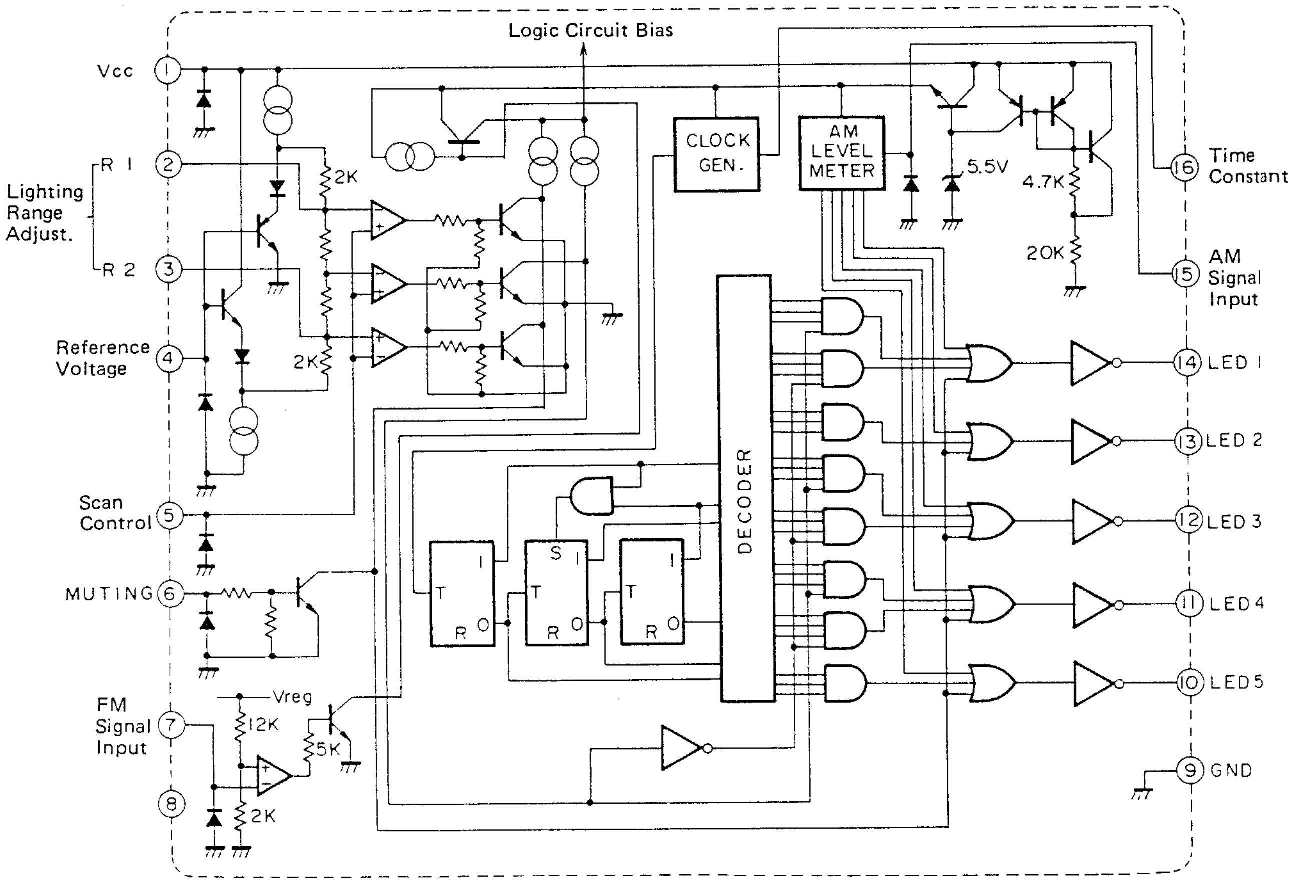
MC14013BCP: IC903



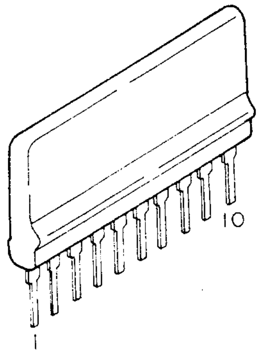

(OUT)
Q
$\overline{Q}$
VDD
GND
Q
$\overline{Q}$
1
2
14
7
13
12
Q
$\overline{Q}$
S
R
D
C
Q
$\overline{Q}$
S
R
D
C
6
5
3
4
8
9
11
10
(IN)
SET
DATA
CLOCK
RESET
SET
DATA
CLOCK
RESET

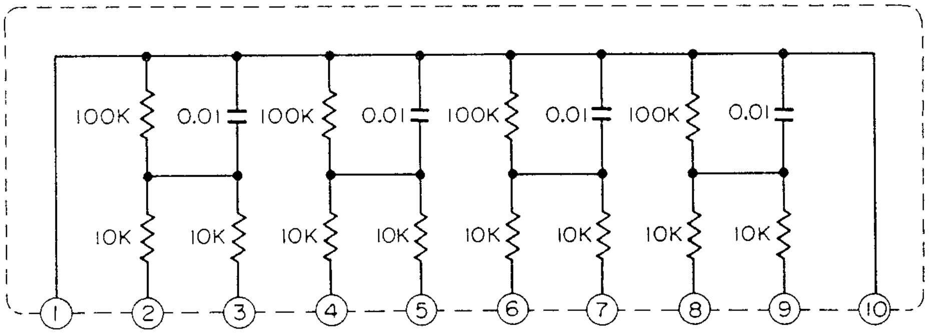
BA685: IC905


1
2
3
4
5
6
7
8
9
10
11
12
13
14

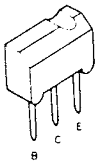

Logic Circuit Bias
Vcc
Lighting Range Adjust.
R 1
R 2
Reference Voltage
Scan Control
MUTING
FM Signal Input
2K
2K
CLOCK GEN.
AM LEVEL METER
5.5V
4.7K
20K
Time Constant
AM Signal Input
DECODER
T
S
R
O
I
LED 1
LED 2
LED 3
LED 4
LED5
GND
Vreg
12K
5K
2K
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

56354F01 (Hybrid Touch Switch): Z901

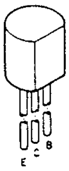



100K
0.01
100K
0.01
100K
0.01
100K
0.01
10K
10K
10K
10K
10K
10K
10K
10K
1
2
3
4
5
6
7
8
9
10

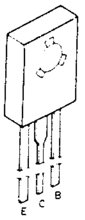
2SD636: Q201 ∿ 204, 303 ∿ 312, 405, 406,
Q701 ∿ 706, 714, 803, 805, 901, 902,
Q904, 906 ∿ 912, 914, 915, 917 ∿ 919
2SB641: Q301, 302, 903, 913, 916
2SD661: Q401, 402
2SD638: Q802



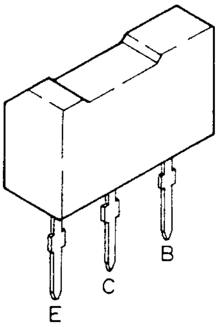
2SC2878: Q403, 404
2SA683: Q709



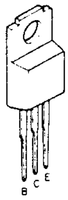
2SD947: Q710 ∿ 713



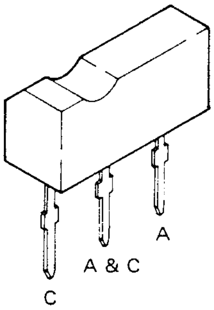
DTC124A: Q714, 715
2SB911: Q804



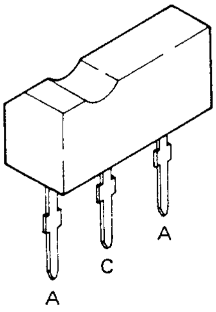
2SD1265: Q801



DA-203: (Array Diode): DA902



DAN-201 (Array Diode): DA702, 705, 706, 901



DAP-201 (Array Diode): DA703, 704